

MAY 2, 1942

Railway Age

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Transportation
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place by two locomotive cranes. One track was kept continuously open, so that installation involved no interference with normal train operation.

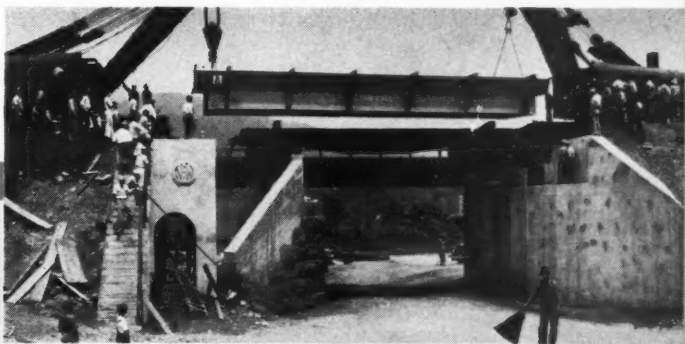
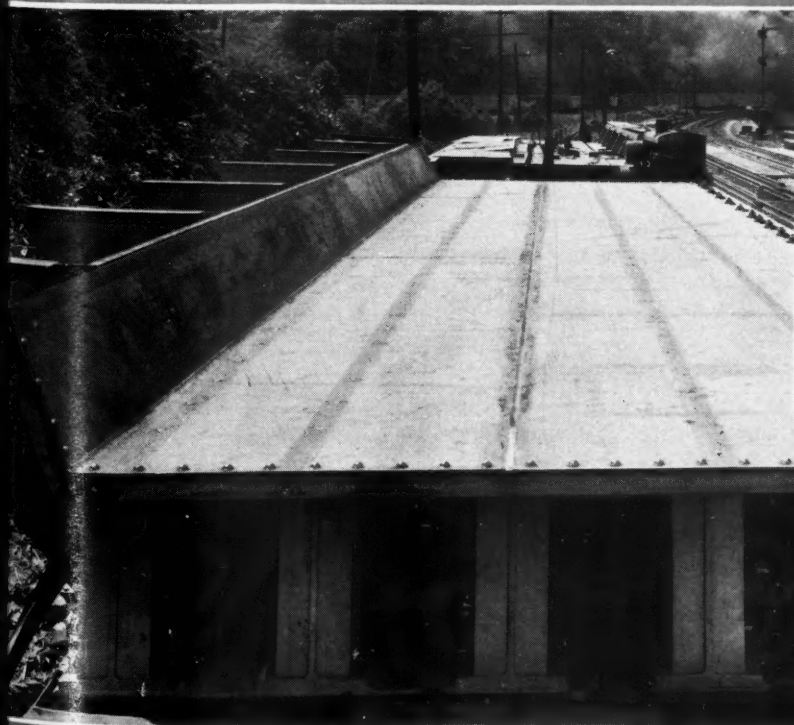
The use of wrought iron was dictated by the need for avoiding future repairs and replacements. The deck is subjected to severe corrosive attack, from run-off water, drainage from coal cars, and drippings from refrigerator cars. Temporary surface coatings for protection are of course impractical.

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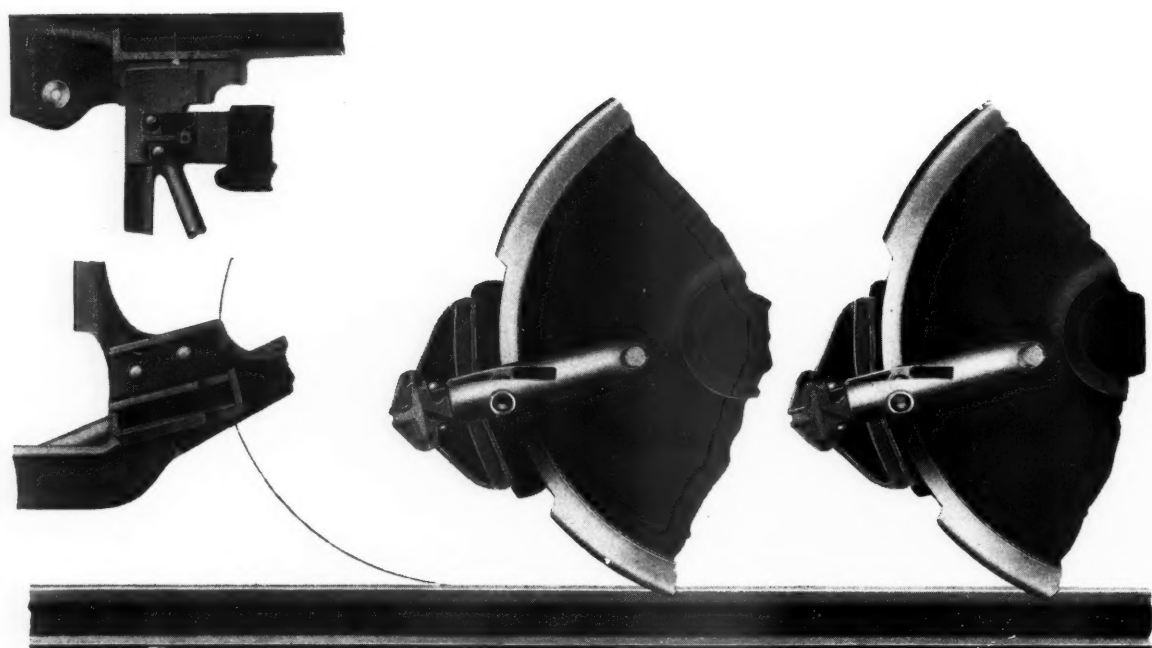
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Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price \$6.00 for one year U. S. and Canada. Single copies, 25 cents each. Vol. 112, No. 18.

Railway Age

With which are incorporated the Railway Review, the Railroad Gazette and the Railway Age-Gazette. Name registered U. S. Patent Office.

Published every Saturday by the
Simmons-Boardman Publishing
Corporation, 1309 Noble Street,
Philadelphia, Pa., with editorial
and executive offices: 30 Church
Street, New York, N. Y., and 105
West Adams Street, Chicago, Ill.

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1081 National Press Building

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1038 Henry Building

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The Railway Age is a member of
the Associated Business Papers (A.
B. P.) and of the Audit Bureau of
Circulations (A. B. C.)

Subscriptions, including 52 regular
weekly issues, and special daily edi-
tions published from time to time
in New York, or in places other
than New York, payable in advance
and postage free. United States,
U. S. possessions and Canada: 1
year, \$6.00; 2 years, \$10.00; foreign
countries, not including daily edi-
tions: 1 year, \$8.00; 2 years, \$14.00.

Single copies, 25 cents each.

H. E. McCandless, *Circulation
Manager, 30 Church St., New York,
N. Y.*

Vol. 112

May 2, 1942

No. 18

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An illustrated article describing the 20 double vestibule coaches built for this road by the American Car & Foundry Company. The cars are built of carbon steel, weigh 139,660 lb. and each car seats 80 passengers.

C. T. C. Signaling Installed on Milwaukee Road 857

A comparison of automatic block and semi-automatic signaling for lines handling a medium volume of high-speed traffic.

Railroad Storage Requirements for Quick-Frozen Foods 862

An abstract of a report presented at the recent convention of the A. R. E. A., discussing the problem of providing properly designed warehouse facilities for this type of product.

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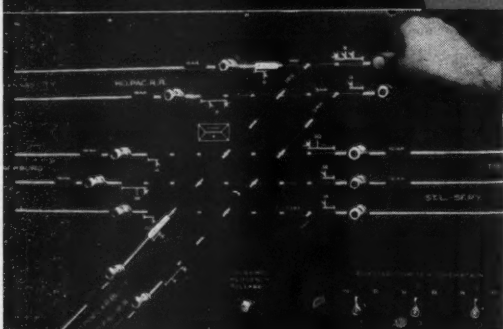
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The Railway Age is indexed by the Industrial Arts Index and also by the
Engineering Index Service

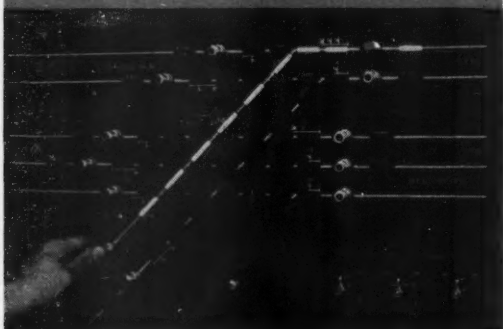
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The Week at a Glance

ODT TRAFFIC ESTIMATE: Carloadings this year will probably run 12 to 15 per cent over last year—so ODT Director Eastman testified last week to the Truman committee, as reported in the news pages herein. The petroleum movement (600,000 bbl. a day—Harold Ickes, please note) is using 850 locomotives, Mr. Eastman said, and has made the power situation "tight" here and there. The director disclosed a lot of ideas for improving railroad performance—very interesting, worth reading.

BOOGER-MAN McKELLAR: Senator McKellar of Tennessee, who prevailed upon the Transportation Board to investigate inter-territorial rates by questioning its appropriation until it agreed to do so, recently tried the same tactics on the I. C. C., as is revealed in the news pages herein. The learned statesman did not like the commission's prohibition against supplying two single-deck stock cars at the price of a double-decker—and he threatened, as retribution, the I. C. C. appropriation for emergency car-service work. The stratagem didn't work.

ARMY APPROVES RAILROADS: There isn't any question about it, the Army likes the railroads—an attitude, it needs hardly be said, which is heartily reciprocated. Since military men do not bestow their praises haphazardly or undeservedly, the railroads' standing with the Army may be taken as a gage of the quality of service they have been providing. The most recent expression of military satisfaction with its inland transportation is recorded in the news pages herein, wherein is reported this week's press conference by the Army's supply chief, General Somervell. The Army's transportation job, said he, "has been absolutely unprecedented in size; and it has been done with unprecedented smoothness—thanks to the very effective co-operation we have with the Association of American Railroads."

"PORT AGENCIES": General Somervell went on to tell about the "Port Agencies" which the Army has set up at points where its goods move from rail to water. These agencies will work closely with the ODT, the shipping administration and the railroads quickly to shift army goods in transit from congested to uncongested ports, and to hold traffic back in the interior whenever shipping isn't going to be immediately available at tidewater. There have been "incipient situations" in the direction of congestion at a couple of ports but, the General added, they were promptly cleared up.

SH! EQUIPMENT MEETING!: The directors of the A. A. R. and Mr. Eastman with his railroad staff had a joint session on April 24, at which the presence of the press was not requested. Rumor hath it that the ODT director expressed himself, not without clarity, on the prospective equipment situation—what with the

WPB counting on the railroads to pull rabbits out of a hat, when they won't have a hat.

STAGGER TO WORK & BACK?: If American municipalities heed Joe Eastman's sound advice, they will set up local organizations (1) to encourage the "staggering" of working hours, (2) for "group riding" in all autos used as a means of getting from home to work, (3) to get better regulation of local traffic—all to cut down the wear and tear on rubber, and to make local transportation efficient. In another case, the ODT has decided that the rubber scarcity is more important than "public convenience"—hence some Kansas City bus customers are going to have to go back to trolley-riding.

CURIOUS I. C. C. LOGIC: The entire I. C. C., with some dissents, has affirmed a Division 3 decision knocking out all-commodity rates between New York-Baltimore-Philadelphia and Atlanta-Chattanooga-Birmingham. The roads wanted the rates to get forwarder business now moving by truck under joint rates (under condemnation by the I. C. C., but enjoying an indefinite stay of execution). This looks a good deal like saying that it is all right for a man to defend himself from an assailant who has not yet been apprehended, but that he mustn't protect himself if the fellow who waylays him is at large on bail pending incarceration.

ORDERS FULL TRUCK LOADS: The ODT has issued some general orders covering trucking operations which are just about as thoroughgoing as General Order No. 1 in its application to the railroads. For example, all over-the-road operations after June 1 are supposed to be loaded to capacity outbound and to not less than 75 per cent on the way back. This requirement omits local collection and delivery vehicles, but, then, everything which goes over 15 miles is considered to be over-the-road. This will take in a lot of truck operations in conjunction with railroads, particularly those around break-bulk merchandise points and where trucks are used in lieu of peddler cars.

HANDLING FROZEN FOODS: Just to get an idea how fast the "quick frozen" food business has grown—the production of one company alone went from 10 million pounds in 1932 to 250 million in 1938, and the business and resulting traffic has continued to expand ever since. To get their share of this movement, the railroads, naturally, must provide the facilities to care for it—and what these are, warehousing especially, is discussed in a paper elsewhere in these pages. It appears that not all the problems attendant on the development of this business have as yet been satisfactorily solved—leaving a considerable field for the profitable operation of inventive and managerial genius, the application of which will have its effect on future traffic.

TRANSPORT ERRORS IN '17: The unsatisfactory transportation conditions during the last war have been ignorantly and dishonestly established in the public mind as arising from a "breakdown" of private operation of the railroads. As the leading editorial herein recalls, the "breakdown" resulted, actually, from unwise governmental policies—not mistakes of private managements. And the biggest error of all was made when a man without experience, or an attitude of mind fitting him for the task, was named director general.

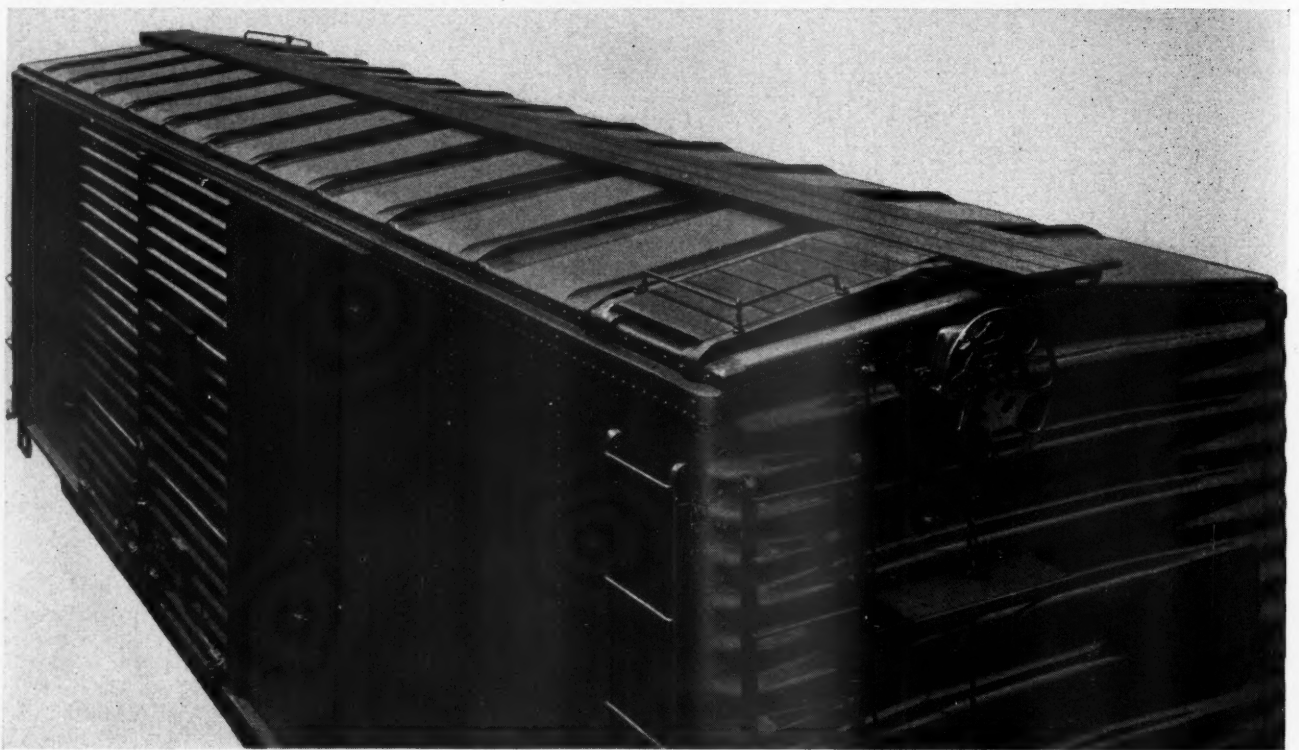
'17-18 MISTAKES AVOIDED: The transportation errors of the last war have so far not been made in this one. That is, cars are not being loaded when there is no provision for acceptance of their lading at destination; indiscriminate priority power has not been given to every Tom, Dick and Harry in the service of the federal government; and the man in charge of transportation for the government, this time, is an official of long experience and great sagacity.

NEW ERRORS CREEP IN: Superficially it would appear that the Federal government has well learned its transportation lesson. However, as the editorial discussion herein makes clear, the government has given its present top transportation man no power whatsoever over the vital business of securing railroad rolling stock. This function is entrusted to men who, however sound their intentions, cannot speak with the authority and conviction that a person of recognized experience would command. In the last war the government's transportation chief, without notable qualifications for the job, was given practically unlimited powers over the equipment supply. In this war, a fully competent man in a similar position is given no authority whatever. Unless this fallacious organization is corrected, government experience with transportation in this war cannot fail to be less happy than it should.

GOODBY "GRAND CIRCLE": The popular \$90 coach rate, enabling the traveler to visit both coasts on a "grand circle" tour, will expire June 1. The Eastern roads won't offer their usual excursion rates to resort points this summer. There are lots of places, still, where the railroads can accommodate more customers (such as resort points in the West, where excursion rates will be continued)—but no use bargain-pricing people into cars already crowded at regular and furlough rates.

C. & O. COACHES: Twenty double-vestibule 80-seat coaches recently received from the builder by the Chesapeake & Ohio are described and illustrated in these pages. A calculated simplicity characterizes the interior and the fittings, as the description enumerates them, suggests a car which ought to please and convenience the customers beyond reasonable expectation.

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War-Time Government and Transportation

It is inevitable that a nation which has maintained no large military forces shall make many grievous mistakes in preparing for and carrying on a worldwide war. The preparations for and conduct of a war by such a nation necessarily are principally delegated to amateurs; and amateurs are sure to make many mistakes that professionals would avoid. But there is one great mistake which, when made by such a nation, is inexcusable. This is the mistake of not relying upon the experience, advice and leadership of even the competent professionals that are available. Our government made this mistake in trying to solve its transportation problem during World War I. In different ways, it is making the same mistake now.

There Was No "R. R. Breakdown" in War I

There is a widespread popular belief that private operation of railways in 1917 during the last war "broke down", and that the government operation substituted for it in 1918 was quite successful. Stuart Chase, a popular writer on economic subjects, and always an advocate of "government planning" that is equivalent to Fascism or Socialism, gives further currency to this general misunderstanding in a recent book entitled, "The Road We Are Traveling." The fact is, as is known by everybody who knows the transportation history of the period, that the government made at least three extremely serious mistakes in dealing with transportation during World War I, owing to which it prevented the most efficient private operation that was practicable in 1917, and prevented government operation from being efficient in 1918.

In intelligently comparing transportation during World War I and during the defense and war efforts of the last two years, it is necessary to consider the difference in the preceding transportation conditions. For months before we entered World War I there had been a serious shortage of railroad transportation, the best measure of which was a shortage of 145,000 freight cars on April 1, 1917, as reported by the American Railway Association. On the other hand, there was on June 1, 1940, when our government began its preparations for this war, a surplus of about the same number of freight cars.

The government's *first mistake*, when the railways were still under private operation in 1917, was that of empowering all government departments to issue orders requiring that priority be given to all freight that they believed should be given preferred movement. The

extensive and indiscriminate use of these priority orders greatly increased the switching that had to be done in already overcrowded railway yards, increased the congestion in these yards, and reduced the service that could be rendered by each switching locomotive, each road locomotive and each freight car.

The government's *second mistake* was that of routing to Atlantic ports many more cars loaded with freight for shipment abroad than could be unloaded into the steamships available, with the result that thousands of cars stood at the ports under load for long periods, instead of being promptly unloaded and sent back to other parts of the country. The supply of cars available for actually moving freight was correspondingly reduced.

The government's *third mistake* was the appointment as Director General of Railroads, when government operation was adopted, of W. G. McAdoo, who was rightly given the unlimited power over priorities which should previously have been centralized somewhere, but who, while knowing nothing about railroad operation, was the very personification of untutored self-confidence.

The Contrast Between War I and Now

For about a year and a half after the recent defense effort, culminating in the present war effort, was begun, the government made none of these mistakes; and railroads, government and all other shippers were helped by the fact that two years ago, as already emphasized, there was a large surplus of transportation. Consequently, there has been the greatest possible contrast between the transportation conditions that existed in 1917 and 1918, and those that have existed during the last two years.

Very few persons realize that the traffic handled by the railroads increased very little in 1918 under government operation, as compared with the very large increase that has occurred recently. The accompanying table shows the facts. Revenue tons moved by the railroads in 1918 were only 1.6 per cent greater than in 1917, and less than 6 per cent greater than in 1916. Revenue ton-miles in 1918 were only 2.8 per cent greater than in 1917, and 12 per cent greater than in 1916. The fact that the increase in traffic handled in 1918 was not larger was not ascribable to a lack of goods to move, but to a type of management given the railroads by a political official which rendered them incapable of moving more freight. If the centralized power over the distribution of rolling stock and over

priorities given Mr. McAdoo in 1918 had been given private management in both 1917 and 1918 the railroads undoubtedly would have done a far better job in both these years than they did in either of them.

War I's Mistakes Have Been Avoided

This view is powerfully supported by the actual performance of the railroads under private management since the second war in Europe began, and especially since France was overrun by the Nazis in the summer of 1940. It gives conclusive evidence of what private management can achieve when it is afforded co-operation by government and the roads are not forced to accept large quantities of freight with no prospect that

much about transportation, but has given him some entirely inadequate kinds of power.

Inexperience Heeded; Experience Gets Deaf Ear

Mr. McAdoo was virtually unrestricted in his purchases of railway equipment and materials; and, although in previous years equipment purchases had been large, in 1918 he placed orders for 2,593 locomotives and 114,000 freight cars. On the other hand, Mr. Eastman, who much better understands the needs of the railways, has power only to **recommend** to the War Production Board what allocations of materials should be made to the railways and manufacturers for them; and the War Production Board, with unlimited power

Traffic and Rolling Stock, Class I Railroads (Excluding Switching and Terminal Companies), in World War I and World War II

	Rev. Ton- Mi. Millions	% Inc. Over Prec. Year	Rev. Tons Thousands	% Inc. Over Prec. Year	Locos. in Service	% Inc. Over Prec. Year	Tractive Power of Steam Locos. (000 Lb.)	% Inc. Over Prec. Year	Freight Cars in Service	% Inc. Over Prec. Year	Freight Car Capacity- Tons	% Inc. Over Prec. Year
1914.....	284,925	....	1,843,216	....	62,533	....	1,886,550	....	2,291,750	....	88,400,000	....
1915.....	273,913	....	1,684,660	....	62,126	....	1,970,295	....	2,286,792	....	89,837,847	....
1916.....	339,870	....	2,093,093	....	61,057	....	1,989,133	....	2,264,233	....	90,766,094	....
1916.....	362,444	....	2,179,696	....	61,332	....	2,024,119	....	2,280,955	....	92,280,335	....
1917.....	394,465	8.8	2,270,035	4.1	61,890	0.9	2,087,950	3.2	2,330,123	2.2	95,467,054	3.5
1918.....	405,379	2.8	2,307,226	1.6	63,889	3.2	2,223,246	6.5	2,354,244	1.0	96,766,585	1.4
Per Cent Increase '18 over '16..	11.8			5.9		4.2		9.8		3.2		4.9
							Tractive Power of All Locos. Owned or Leased*		Frt. Cars Owned or Leased*		Capy. of Frt. Cars Owned or Leased*	
1938.....	290,154	....	1,395,262	....	43,566	....	2,195,000	....	1,681,622	....	83,353,627	....
1939.....	333,444	....	1,640,940	....	42,348	....	2,156,539	....	1,638,301	....	81,641,292	....
1940.....	373,225	11.9	1,850,326	12.8	41,455	-2.1	2,133,924	-1.1	1,640,006	0.1	82,275,401	0.8
1941.....	475,054	27.3	2,290,266	23.8	41,438	....	2,150,201	0.8	1,693,978	3.3	85,379,142	3.8
Per Cent Increase '41 over '39..	41.1			39.6		-2.2		-0.3		3.4		4.6

*The figures on equipment for the 1938-41 period are not compiled on precisely the same basis as those for the 1914-18 period, and absolute comparisons between the two periods would not be accurate on the basis of these figures. These statistics do, however, provide a valid basis for comparing relative changes in the equipment situation between the several years within each war period, with like relatives in the other period.

it can be unloaded at destination. From 1939 to 1941 the railroads successfully handled an increase of almost 40 per cent in tons and more than 41 per cent in ton-miles, without any delays to traffic whatever—largely because the government in 1940 and 1941 did not make the mistakes in dealing with them that it made in 1917 and 1918.

Furthermore, the government has wisely fortified itself against repetition of the mistakes made by government operation in 1918. By establishing the Office of Defense Transportation, under the direction of Joseph B. Eastman, it has provided machinery which, if wisely used—as we believe it will be by the experienced men in charge of it—will encourage as much joint action as circumstances require, while leaving actual operation in the hands of practical men who will measure their success by results, rather than by political considerations.

But, fortified as it is against making the same mistakes that it made before, it is quite clear that the government is in the gravest danger of making other mistakes almost equally serious. In the last war when it appointed as director of transportation a man who knew almost nothing about transportation, it gave him almost unlimited power. In this war it has appointed as director of transportation a man who does know

over materials, has refused to allocate anywhere near the quantities that Mr. Eastman has recommended. During the last war the government greatly aggravated an already existing shortage of transportation by preventing efficient use of equipment that was available. During this war it is threatening to create a shortage of transportation that has not heretofore existed by failing and refusing allocation of the materials necessary to prevent it.

Attention has already been drawn in these pages (April 25, page 811) to the strong probability that WPB's estimates of the quantity of rolling stock the railroads will require have been based on prospective **carloads** rather than **ton-miles**. The accompanying table, affording comparisons with the previous war period when railroad capacity was pressed to the limit, suggests still other factors which the inexperienced members of WPB are missing.

Traffic Increase Thrice That of Last War

For purposes of comparing the present war with the previous one, 1939 may be fairly likened to 1916. Both years followed depressions in domestic business and both of them included hostilities in Europe in which this country had not yet been involved. What, then,

was the equipment policy in 1916 and the years immediately following? From 1916 to 1918 tractive power of steam locomotives increased almost 10 per cent and freight car capacity almost 5 per cent—while ton-miles increased less than 12 per cent. In the present war period, by contrast, aggregate locomotive tractive power in 1941 was actually less than in 1939, while ton-miles increased 41 per cent. The ratio of increase in aggregate freight car capacity in 1939-41 almost equals that in 1916-18—but the two-year ton-mile traffic increase this time has been **more than three times the 1916-18 increase.**

And the increase in traffic is continuing unabated. We have no ton-mileage statistics later than those for January; but, in view of experience in that and other recent months, it is safe to assume that ton-mileage, the true measure of freight service rendered and of traffic demands upon the railways, increased throughout the first one-third of this year relatively twice as fast as carloadings. In other words, the increase of 10.3 per cent in carloadings in the first third of the year indicates that the increase in ton-mileage was over 20 per cent. On that basis, ton-mileage in the first one-third of 1942 was about 159 billion, an increase of 13 per cent over 1929, and of 15 per cent over the average of the first one-thirds of the years 1925-1929, inclusive.

If WPB Order Stands, We'll Need a Miracle

As we have so often pointed out, carloading figures have become dangerously misleading as a measure of current demands upon the railways for service. The increase of 10 per cent in loadings in the first one-third of 1942 was relatively only about two-thirds as large as the increase of 14 per cent in the first one-third of 1941; but it undoubtedly resulted in relatively as large

an increase in ton-miles—about 20 per cent in both periods. There is no reason whatever for doubting that during the rest of this year the increases in loadings will continue to be relatively at least two-thirds as large as last year—in which event the increases in **ton-miles** will be relatively as large—that is, 35 per cent in the second one-third and 30 per cent in the last one-third.

In that case, with many fewer cars in bad order that can be put in serviceable condition, with the car surplus much smaller than a year ago, and (under the recent order of the War Production Board) with the prospective increase in new freight cars smaller, it will be a miracle if during the last two-thirds of this year there does not develop a shortage of cars. And whereas in 1917 and 1918 the so-called "shortage" was really due to failure to use efficiently the large supply of cars available, in 1942 the shortage will be real and due to impossibility of making an inadequate supply of cars go around, however efficiently used.

Perhaps the War Production Board knows what it is doing better than it seems to. Perhaps the materials it is denying the railways really are more needed elsewhere—for shipbuilding, for example. But if, in spite of the most efficient operation possible, there prove not to be enough cars, the true reason should be so adequately presented to shippers and the public that everybody will know it. Everybody should be made to understand that railway management and the Office of Defense Transportation fully presented the situation to the War Production Board; that the railroads early enough placed enough orders for equipment; that the equipment building companies and railroad shops could and would have built enough if allowed to do so; and that **the responsibility for whatever shortage of transportation develops belongs solely to the War Production Board.**

Loyalty Shouldn't Stifle Criticism

The Wall Street Journal has the following to say about the Office of Defense Transportation:

"There is one product of supreme importance to our war effort of which it can be said that it is being dealt with in an atmosphere reasonably free from politics and conflicting pressure groups, and with a notable lack of heated bearings—inland transportation. All things considered everyone concerned in it seems to be cooperating handsomely with a minimum of friction or mutual suspicion and the result is that a really remarkable job is being done under anything but favorable conditions. These have required many changes in methods, changes that had to be made in a hurry with more changes to come all the time, yet a tremendous traffic is being moved swiftly and safely and no noise or confusion about it. The whole task in short is being competently performed.

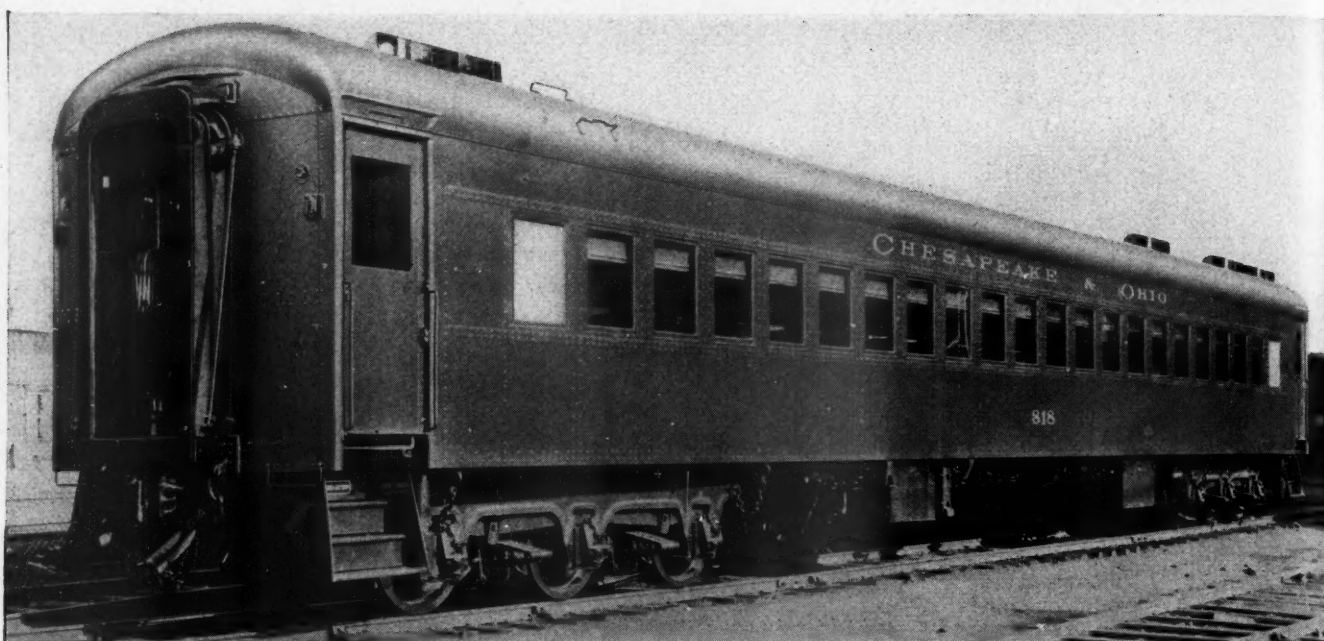
"On top of it sits Mr. Eastman. This newspaper has many a time over the years taken a poke at this indefatigable man for one thing or another, and may do so again at any time. But it feels bound to say that the Washington scene, as it sees it at present, offers no better example of man-on-to-his-job than does this same Joe Eastman.

"And most people engaged in the transportation business seem to feel the same way about it."

The Journal might also have added that this official is one who seems to be guided, largely, by principle, and little, if at all, by expediency—an attitude too seldom seen in public life today.

It is not necessary to display enthusiasm for every single act of a public official—especially on highly technical questions where an honest difference of opinion is possible to competent and well-intentioned persons—in order to give him the honor to which his integrity and usual discernment entitle him.

Your observer agrees with the Wall Street Journal in its opinion of Mr. Eastman, and also in its reservation of the right to look critically at what he does—especially acts of his subordinates which may seem to us to be ill-advised from a standpoint of economic division of traffic. We doubt if Mr. Eastman himself would ask any more from "his public". After all, he is no autocrat, deeming himself infallible.



C. & O. Coach Built by the American Car and Foundry Company

Chesapeake & Ohio Receives Twenty Coaches

Cars delivered by the American Car and Foundry Company are built of carbon steel and weigh 139,660 lb. — There are seats for 80 in two compartments

THE Chesapeake & Ohio is receiving delivery from the American Car and Foundry Company of twenty double vestibule coaches which are notable for their simplicity of interior design. Each car accommodates 80 passengers in double rotating, reclining seats.

The cars are of modern design, to the present A. A. R. standard contour for new passenger cars, but without skirts. They have a coupled length of 80 ft. 5¾ in.; length center to center of trucks, 55 ft. 11 in.; height rail to top of roof, 13 ft. 6 in., and width over side sills, 10 ft. The light weight of the car body is 91,840 lb.; the two six-wheel trucks, 47,820 lb.—a total of 139,660 lb. Toilet facilities for men and women are located at each end of the car, and the cars are partitioned to form a smoking room, or Jim Crow section, at one end, with a seating capacity of 20 passengers, while the main passenger compartment seats 60.

Interior Treatment

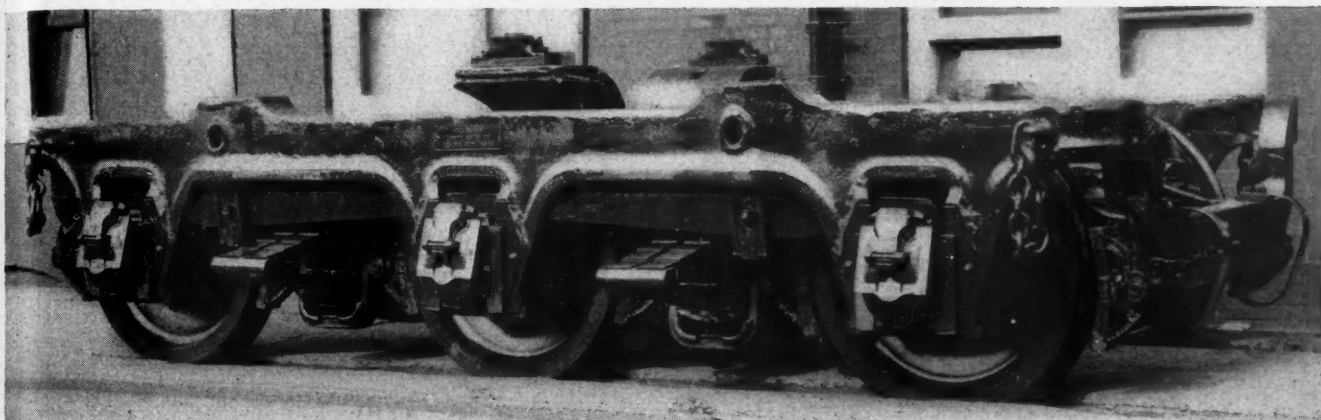
Simplicity of design and decorative treatment characterizes the steel interior finish. The bulkhead and swing door in the main passenger compartment are glazed in the upper panels. All exterior and interior doors are of steel. Window sash throughout the car are of mahogany, double, except at the toilets which are single. The outside sash are stationary and are thoroughly sealed. The inside sash are arranged to swing,

being hinged vertically at one edge. The lower part of the toilet-room walls to a height of 28 in. from the floor are covered with Tylac ¾-in. imitation tile, 4¼-in. squares, in white with forest green scored lines.

The interior paint colors for the main compartment are various shades of Dulux gray. The entire ceiling in the main body of the car is light gray. Side walls from the side-plate moulding to the window capping are medium gray green. Window capping, basket racks, and bulkheads are medium gray green. Passageway walls and ceiling are also gray green. The side walls of the toilets above the tile wainscot are medium gray green. Vestibule walls and ceilings are painted dark green the same as the exterior of the car. All trimmings within the car are statuary-bronze finish.

The tubular-frame seats are double rotating with reclining backs. The cushions are foam-rubber and the upholstery Massachusetts mohair plush. Ten car sets, furnished by the Heywood-Wakefield Company, are upholstered in two-tone brown, and ten car sets, furnished by the Coach & Car Equipment Company, are upholstered in two-tone rust.

The main floor has an aisle strip 18 in. wide, of ¼-in. Goodyear green mottle rubber, edged on each side with a 2-in. mottled cream strip. Toilet floors are covered with mottled cream rubber and the vestibule platforms are covered with mottled green rubber matching the center aisle strip.



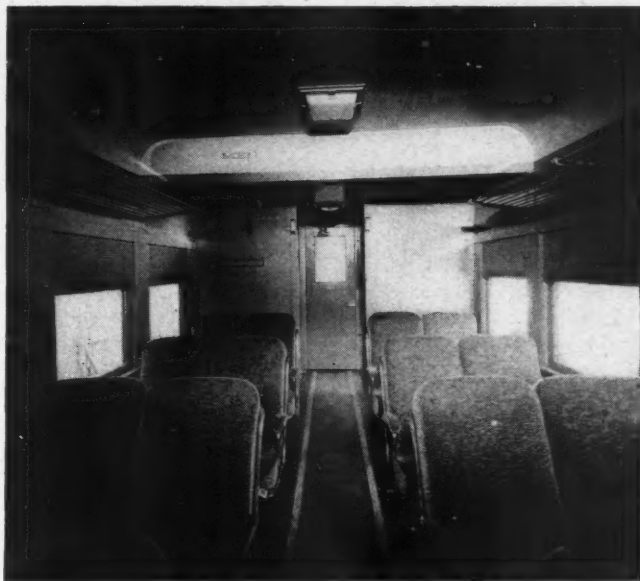
Straight-Equalizer Truck with Inside Side Bearings for the C. & O. Coaches

Window curtains are silk-faced Pantasote material. The gray background is relieved with a small design in gold. The Adams & Westlake basket racks are 18 in. wide, of the continuous sectional type. Dayton monel-metal washstands and Duner single-pan flushing hoppers are used. The usual toilet-room accessories, such as clean- and used-towel cabinets, comb-and-brush racks, coat hooks, and toilet-paper holders are provided. A mirror 18 in. by 30 in., is mounted in a frame over the washstand in each toilet room.

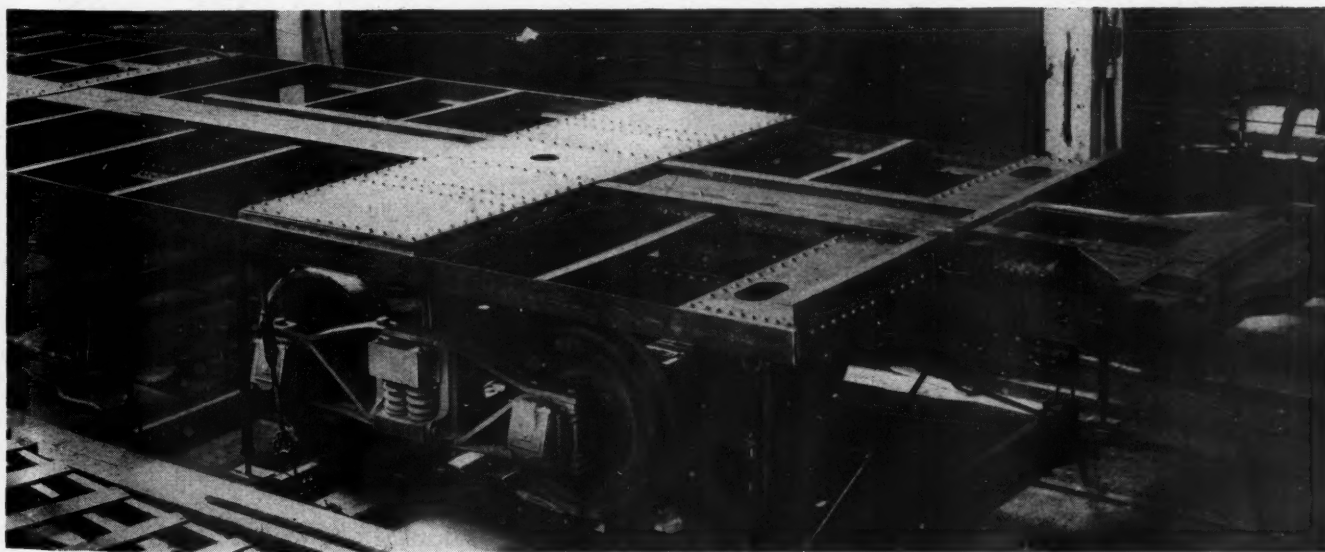
The Car Structure

The car structure is designed to meet the requirements of the U. S. Post Office Department's construction specification and the A. A. R. specification for the construction of new passenger equipment cars dated March 24, 1939. The first car shell was subjected to the A. A. R. squeeze test at Altoona, Pa., with very satisfactory results.

The car frame is of riveted and welded girder design and is built of ordinary openhearth carbon steel. The center sill comprises two A. A. R. Z-26 sections weighing 36.2 lb. per foot. They are spaced 16 in. between webs, with a $\frac{3}{8}$ -in. bar welded continuously to the upper inner flanges, and angle reinforcements at the bottom. The draft sills are a continuation of the center sills and are attached to the steel buffer castings. The side sills are 5-in. by 3-in. by $\frac{5}{16}$ -in. angles, and the side plates



The Horizontal Anti-Collision Girder Extends Inside the Car One Window Beyond the Toilets



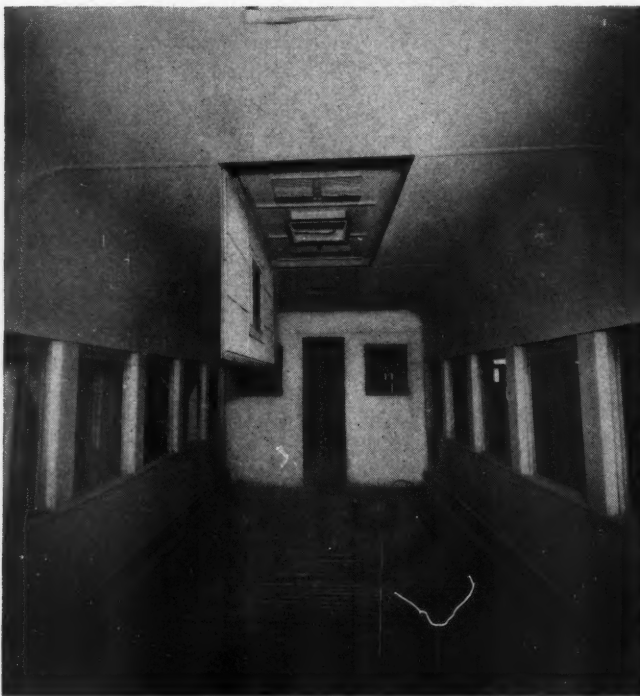
The Underframe Showing the End-Sill and Bolster Construction



The Two Passenger Compartments Are Separated by a Partition and Door

are 3-in., 6.7-lb. Z-bars. The sheathing is of No. 11 gauge steel and the roof sheets No. 14 gauge steel. The side posts are pressed channel shape and the carlines are pressed Z shape. Unusual protection against telescoping in the event of collision is obtained by the extension of the vestibule I-beam end posts downward through the steel buffer casting to a distance of 22 in. above the rail. Another exceptional measure for the protection of the car against the effects of heavy end blows is the horizontal girder which extends across the car at side-plate height from the vestibule end posts to a line 8 ft. 3 in. inside the body of the car.

The underframe is covered with No. 18 gauge galvanized sheets. The car floor is laid on seven longitudinal wood stringers. It consists of $\frac{5}{8}$ -in. Keystone galvanized steel, covered with Tuco Flexolith. Insulation is



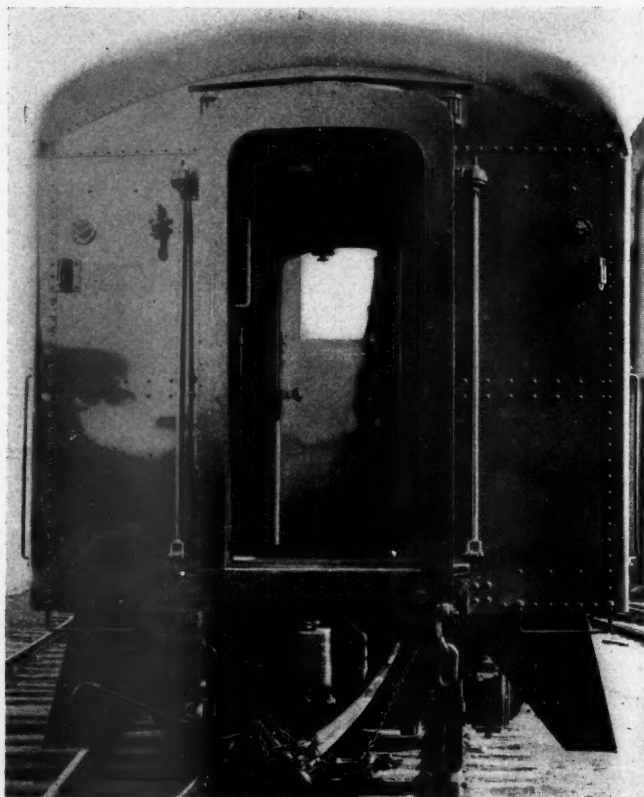
The Multi-Vent Ceiling Panel Dropped, Showing the Air-Control Panel and the Foundation for the Center Lighting Fixtures

2 in. thick in the sides, ends, roof, and floor of the car. Ten cars have Stonefelt insulation, Type M., and ten cars Fiberglas insulation.

Miner A-5-XB friction draft gears and B-10-X buffing devices are applied, with Buckeye Type E couplers and A. S. F. cast-steel yokes. The coupler carrier and centering device was designed by the car builder and is supported by the main vestibule post extensions. It provides for limited lateral movement of train-line pipes. The face plate and buffer angle are supported by anti-rattling rods with the Fowler upper buffing device. Tuco National type trap doors are used over steel steps with Kass treads. Adams & Westlake vestibule curtains and two-fold U-shaped sectional diaphragms are applied at each end.

Lighting Equipment

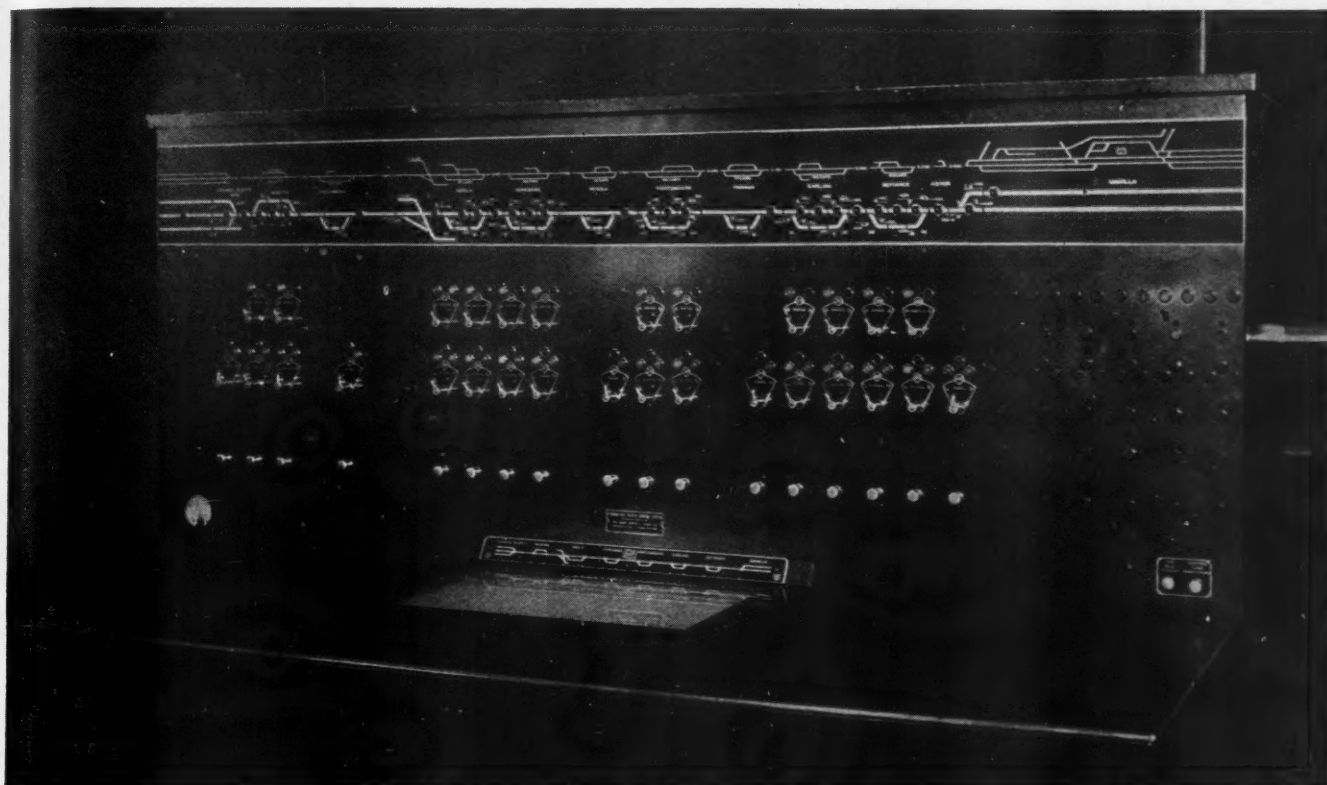
The lighting equipment consists of a Safety body-suspended 4-kw. generator with Dayton V-belt drive.



The Lower Ends of the Vestibule End Posts Extend Well Below the Buffer Casting (Behind the Safety Chains)

Storage batteries are supplied in equal numbers by four companies—the Electric Storage Battery Company, the K. W. Battery Company, the Gould Storage Battery Corporation, and the Philco Corporation, Storage Battery Division. There are nine Safety center lighting fixtures in the passenger compartments. These are square with opalescent glass reflectors and are recessed into the Multi-Vent center ceiling panels. A passageway ceiling fixture is located at each end of the car to match the center fixtures. Bracket lamps are placed above each washstand and vestibule ceiling fixtures are located over each step entrance.

The air-conditioning equipment consists of the Waukesha seven-ton ice engine, with the necessary fuel
(Continued on page 864)



The C. T. C. Control Machine Includes an Automatic Train Graph

C.T.C. Signaling Installed on Milwaukee Road

A proving-ground comparison of automatic block and semi-automatic signaling for lines handling a medium volume of high-speed traffic

THE Chicago, Milwaukee, St. Paul & Pacific has made an installation of centralized traffic control on 59.1 miles of single-track main line between Manilla, Iowa and the yard office at Council Bluffs, which was planned especially for a line handling a medium volume of traffic, including both passenger and freight trains operating on fast schedules. No automatic block signaling was in service on this territory previously except for switch and station protection signals at a number of locations. The problem was to improve safety and expedite train movements. A decision was that the installation of automatic block signaling would provide safety but would necessitate continuance of the previous practice of authorizing train movements by time table and train orders, whereas, by installing centralized traffic control, including semi-automatic signals, the train movements could be authorized by indications of these signals, thus obviating train delays occasioned by time-table and train-order operation.

The next problem was to so plan the centralized traffic control that the total cost would be approximately the same or perhaps only slightly more than the estimated cost of complete absolute-permissive normal-clear auto-

matic block signaling. In brief, this objective was attained by adapting the signaling to meet the requirements of train operation and by omitting certain items which ordinarily are used in more complete centralized traffic control projects on lines which handle more trains. For example, this is the first extensive centralized traffic control project which includes no power-operated switch machines. At some of the switches, spring mechanisms are used, but hand-throw switch stands were continued in service at the remainder of the sidings. At three sidings which are used by the way freight, leave-siding semi-automatic signals only were provided, and the over-all station-to-station semi-automatic blocks extend between the major sidings used by through trains. This feature, combined with the fact that head-on protection, arranged by staggered intermediate signals spaced double braking distance, is not required in C. T. C., permitted the omission of numerous intermediate automatic signals as compared with what would have been required if a straight automatic block had been installed.

In this C. T. C. installation, the local signal controls are handled on a two-wire line circuit which is used for one direction or the other, whereas, two two-wire line

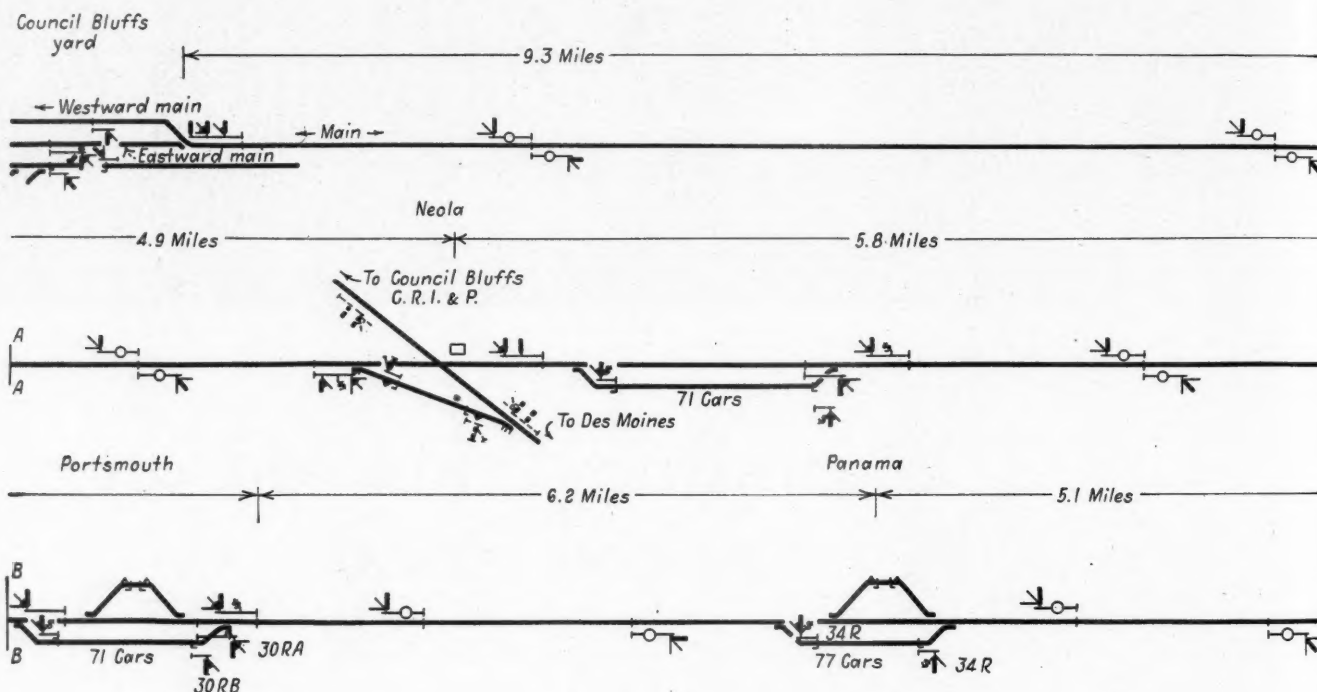
circuits would have been required to accomplish the same purpose and degree of circuit protection if automatic block signaling had been installed. Another feature is that in this C. T. C. project, track-occupancy indications on the control machine for each station-to-station block as a whole are controlled without the use of extra line wires between the field stations at the sidings and the track relays of intermediate track circuits. Even if cross-arm space is available, a line wire with pins and insulators will cost approximately \$100 per mile, in place.

Track Layout

For the most part, the main line of the Milwaukee Road is double track for the 423 miles from Chicago to Manilla. From Manilla, one single-track line extends

passenger trains and 60 m. p. h. for freight trains. On curves sharper than 1 deg. 30 min., the maximum speed is restricted to maxima ranging from 80 to 55 m. p. h. depending on the degree of curvature. The Midwest Hiawatha passenger train is scheduled to make the 59.1 miles between Manilla and the Yard Office at Council Bluffs in 59 minutes westbound and 56 minutes eastbound. The fastest scheduled freight train covers this distance in 105 minutes. Two passenger trains and four through freight trains are operated each direction daily, in addition to a way freight westbound daily except Sunday. Extra trains are operated as required, with the result that a total of 12 to 14 trains are operated daily.

The locations and car capacities of the various passing tracks are shown on the diagram. The sidings at



northwest to Sioux City, Ia., where connections are made with other Milwaukee lines to Sioux Falls, S. D. and Aberdeen, S. D. Also from Manilla a second single-track line extends 59 miles to the yard office at the east end of the freight yards at Council Bluffs, beyond which point double track extends 1.3 miles to the station at Council Bluffs, where connections are made with various railroads as well as in Omaha, Neb., which is just across the Missouri river.

Having double track with automatic signaling east of Manilla, the problem was to increase the track capacity, train speeds, and safety of operation on the single track line between Manilla and Council Bluffs. During the last two years, line changes were made at several locations to reduce the curvature of the track. New 112-lb. rail was laid through this territory, except for about 24 miles where 100-lb. rail had been laid within recent years. The line was rebalasted throughout with gravel. At Manilla the elevation above sea level is 1,317-ft. and at Council Bluffs, 976-ft. For the most part, the line follows various creeks with grades ranging up to 0.3 per cent. The ruling ascending grade westward is 0.66 per cent for 3 miles west to Defiance. On the other side of this hill, the ascending grade eastward is 0.5 per cent for 2.5 miles.

The maximum permissible speed is 90 m. p. h. for

Earling and Portsmouth were extended in connection with the rail change program, and a siding at Chautauqua, between Council Bluffs Yard and Weston, has been removed. At Neola, a single-track main line of the Chicago, Rock Island & Pacific crosses the Milwaukee, this crossing being protected by a mechanical interlocking which is maintained and operated by the Rock Island.

Hand Throw and Spring Switches

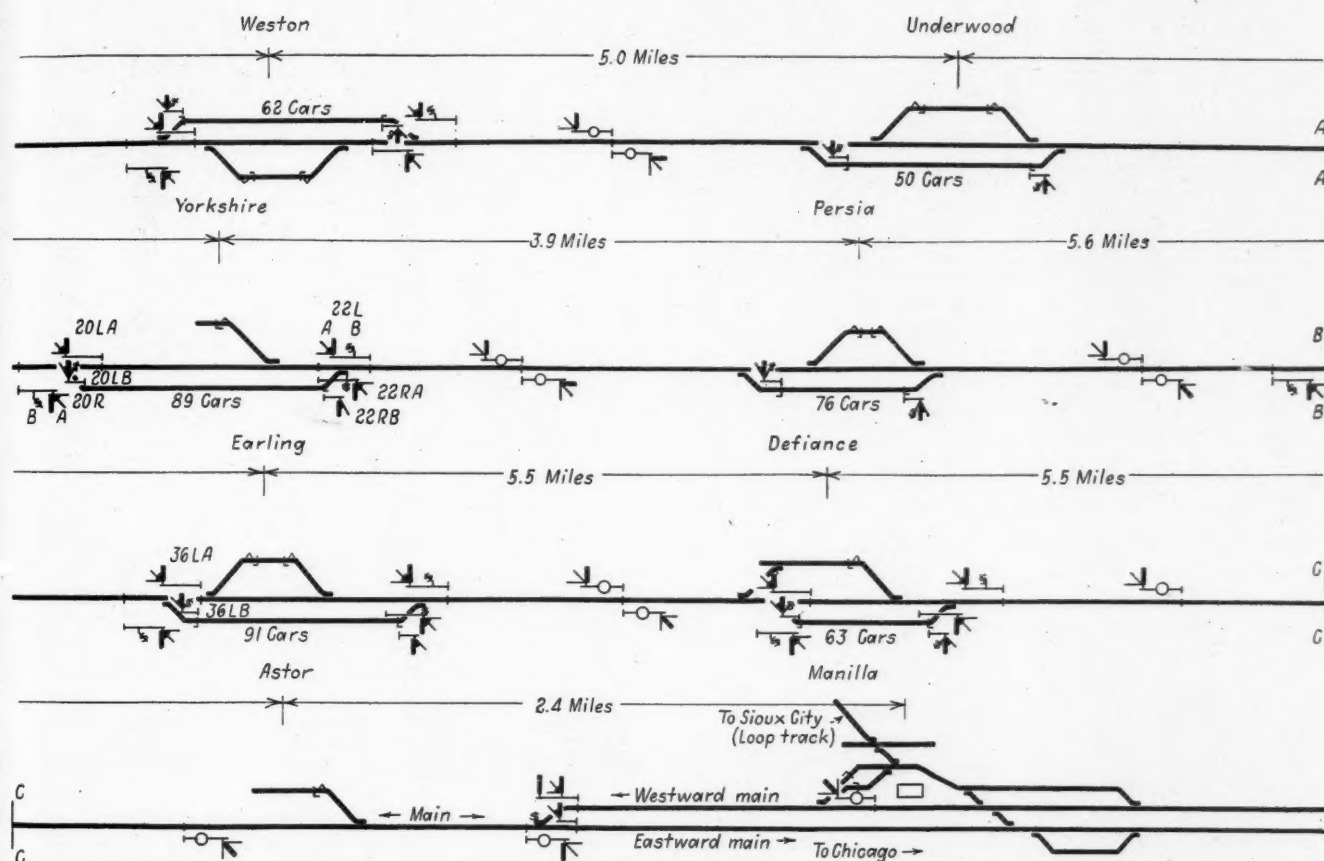
Between Manilla and Council Bluffs, the preponderance of loaded freight cars move eastward, therefore, preference is given to eastward freight trains. For this reason, spring switch mechanisms with automatic mechanical facing-point locks were installed at the east switches of the passing tracks which in the average procedure would most logically be used by eastbound through freight trains, these including Earling, Portsmouth, and Yorkshire. Another factor in the decision to use spring switches at these locations was the adverse ascending grades encountered by trains when pulling out of these passing tracks. On the average, a spring switch will save about eight minutes time when a long heavy freight train is pulling out of a passing track, because no train stop is required to permit the rear brakeman

to return the switch to normal. The spring switch formerly in service at the end of double track at Manilla has been retained and equipped with a facing-point lock. The remainder of the main line switches in this territory are operated by ordinary hand-throw stands.

The sidings at Defiance, Earling, Portsmouth, Yorkshire, Neola and Weston are each long enough to handle a through freight train, and therefore, at each of these six sidings, a complete arrangement of semi-automatic signals was provided to authorize trains to enter the siding, depart from the siding, or proceed on the main line to the next semi-automatic signal. The short passing tracks at Panama, Persia and Underwood are not ordinarily used by through trains because they are not long enough, although, in some instances, they may be used by the way freight train in clearing the main track

14-in. cover of ground glass, and the lamp inside is normally extinguished so that no light is visible. When an approaching train is to be directed to take siding, the top "arm" is controlled to display a red light, and the second "arm" is illuminated with a white light to outline a black letter "S." This combined aspect directs the train to stop while the head brakeman reverses the switch, and the train is then to pull into the siding, after which the rear brakeman returns the switch to normal. This operation is the same, regardless of whether a hand-throw switch stand or a spring-switch mechanism and locking stand is in service at the switch.

If an eastbound train on the siding at Yorkshire, for example, is to be directed to depart, the eastward leave-siding dwarf signal 22RB is controlled from the office to cause the aspect to change from red to yellow, which



for a through train. In such instances, the only signaling required is that necessary to direct a train on the siding to pull out and proceed to the next station. On this basis, the only signals at each of these three sidings are two leave-siding dwarfs.

Searchlight Signals Used

The main-line high signals are the searchlight type, each unit being capable of displaying a red, a yellow, or a green aspect. Each intermediate automatic signal has a circular number plate on the mast, and the red aspect indicates "Stop-and-Proceed," A. A. R. Rule 291. The semi-automatic signals, which are all located at the sidings, have no number plate on the masts, and a red aspect indicates "Stop," A. A. R. Rule 292.

Each of the station-entering semi-automatic signals has a second "arm" which consists of a normally-extinguished lamp unit mounted on the mast 5 ft. below the main light-signal unit. This second "arm" has a

authorizes the train to pull out as a non-stop trailing move through the spring switch, and then proceed to the next station. On the other hand, if a westbound train on the siding at Yorkshire is to be directed to depart through the hand-throw switch at the west end, the westward leave-siding dwarf signal 20LB is controlled to illuminate a letter "S" unit in addition to the previously existing red light in the signal. This aspect directs the head brakeman to operate the switch to the reverse position by means of the hand-throw stand. Then the red aspect in the signal is extinguished and the yellow aspect is displayed. After the train is out on the main line, the rear brakeman must place the switch normal before boarding his train.

Leave-Siding Signals Only at Three Sidings

At each of the short sidings, Underwood, Persia and Panama, leave-siding signals only, are provided. These sidings will be used only by the way freight, and only

by that train when necessary to get into the clear at these stations. For example, with a way freight in the siding at Panama, neither of leave-siding signals can be controlled to display a proceed aspect until the main line is unoccupied between signal 36L at Earling and signal 30RA at Portsmouth. This arrangement for holding the way freight on the siding until the train which passes has reached the next town, may cause some minor delays to the way freight, but these occasions will be rare. With no train occupying the main line between the limits explained, a control can be sent out from the office which causes the "S" aspect to be displayed on both of the leave-siding dwarf signals at Panama. When the brakeman throws the switch, the red aspect is extinguished and the yellow aspect is displayed. Presumably the train will depart in the direction in which it is headed, but if it is to back out of the siding, as the most feasible move preparatory to further switching, such a back-out move can be made with safety because protection is afforded for the over-all main line block between Earling and Panama.

Intermediate Signaling to Meet Traffic Requirements

In comparison with the conventional arrangement of intermediate signals which would have been required if automatic block signaling had been installed, a reduced number of intermediate signals were required on this project. In a centralized traffic control system including semi-automatic station-leaving signals which normally display the Stop aspect, there is no chance for two opposing trains to pass normal-clear opposing head block station-leaving signals simultaneously. For this reason, intermediate signals need not be provided or located to afford head-on protection. This factor permitted the omission of a considerable number of intermediate signals.

Based on the number of trains operated daily, and also giving consideration to the time spacings between trains, some of the intermediate automatic blocks are from 4 to 5.5 miles long, as compared to a range of from 1 to 2 miles in ordinary automatic block signaling.

The C. T. C. Control Machine

The control machine for the C. T. C. territory between Manilla and the yard office at the east end of the yard at Council Bluffs is located in the office at Manilla. In order to have local control of train movements into and out of the east end of the yard at Council Bluffs, the two high signals and the three dwarfs at this location are controlled locally by a small machine on the operator's desk in the yard office. In order for the operator in the yard office to clear an eastward signal for a movement on the single track main line eastward, the man in charge of the control machine at Manilla must send a release.

Likewise, in order for the leverman in the interlocking at Neola to clear a home signal on the Milwaukee, the man at the control machine in Manilla must send a release to Neola.

The illuminated track diagram on the C. T. C. machine at Manilla has lamps to indicate occupancy of the OS section at each switch where a complete arrangement of semi-automatic signals is provided. Also, a lamp indicates occupancy of the main track section within station limits opposite each of the sidings which has complete semi-automatic signaling. One lamp only is used to indicate occupancy of each station-to-station section of main track between sidings which has complete semi-automatic signaling.

Above the illuminated diagram, there is a second diagram which shows all main track switches to house tracks as well as the sidings, and information is given concerning the mileage between towns, and the freight car capacity of each siding.

Although no power switch machines are used on this project, there is a switch lever corresponding to each switch at which a complete arrangement of main line, take-siding and leave-siding semi-automatic signals are provided. These include both switches of the sidings at Defiance, Earling, Panama, Portsmouth, Yorkshire, Neola, and Weston, thus making a total of 14 switch levers. Ordinarily the switch levers stand in the normal position to the left, and, as long as the corresponding switch is in the normal position, a green lamp, above the normal position of the lever, is lighted.

When a train is to be directed to enter or to leave a siding at one of the switches, the corresponding switch lever is thrown to the reverse position, the signal lever



Station-Entering Signal with Take-Siding Indicator

is moved from the center position to either the left or right position, as may be required, and then a starting button is pushed to cause the control code to be sent to the field station. In such an instance, the code chain is of a nature to control the equivalent of a switch control relay, as well as a signal control relay, at the field station. When the "take siding" or "leave siding" indication has been displayed, the corresponding control panel light for "signal clear," right or left, is displayed and the switch indicator light displays a yellow indication. Thus the present installation includes all the elements for the control and indications which may be needed if power switch machines are installed at a later date, if needed on account of an increase in traffic or a need further to reduce train time by saving the time now required for operation of hand switches when entering sidings. The short sidings at Panama, Persia and Underwood are for use in emergencies, or for the way freight to get in the clear. For this reason, leave-siding signals only, are provided. For example, at Panama, both of these leave-siding signals are numbered 34R, and both are controlled

simultaneously by one lever and one code sent from the office to one field station at the siding.

Code Line Control System

The controls from the office to the various field stations, as well as the return of indications, are handled by the Union Switch & Signal Company two wire time-coding system, the equipment being arranged for a maximum of 35 field stations. The two line wires for the code system are No. 10 bare hard-drawn copper. These are not additional wires on the pole line because they replace two old iron wires which would have had to be replaced regardless of whether the signaling project had been installed. In addition to the code system, the two new line wires also carry a telephone circuit and one leg of a phantom for a multiplex telegraph circuit. Thus the code circuit was secured without subtracting from the communication facilities. The previous two iron wires carried a block telephone circuit which is now on the two new wires. This circuit is cut in at the various stations as well as at telephone boxes located at each end of every siding. When a trainman or a maintainer wants to talk to the operator at Manilla, he listens on the line, and if not in use, he talks, and thus comes in on a loud speaker in the office at Manilla. The operation of codes on the line does not prevent the transmission of speech, this feature being accomplished by filters. When the operator wants to call an agent at a station office, he rings a code of longs and shorts in the usual manner.

In this installation, the track circuits on the sections of single track between passing sidings are of the coded type with battery feed at the west end in every instance. With no train in a station-to-station overall block, and no office control in effect, code at the rate of 180 per minute is fed to the rails at one end and is repeated through the various track circuits to the other end. At the receiving end, the incoming 180 code causes an indication to be sent to the office to show that the station-to-station block is unoccupied. This feature obviates the need for line wires between the field stations at the sidings and the relays of intermediate track circuits, to repeat track-occupancy indications of the intermediate track circuits. Intermediate automatic signals are normally clear for the direction in which traffic was last set up. As previously stated, the 180 code is normally fed to the track at the west end of each track circuit on the single track sections between passing tracks. When any track circuit is occupied, the code on the successive track circuits to the east is changed from 180 to 120. At the west end of the passing track to the east, the 120 code causes a "block-occupied" indication to be transmitted to the control office at Manilla.

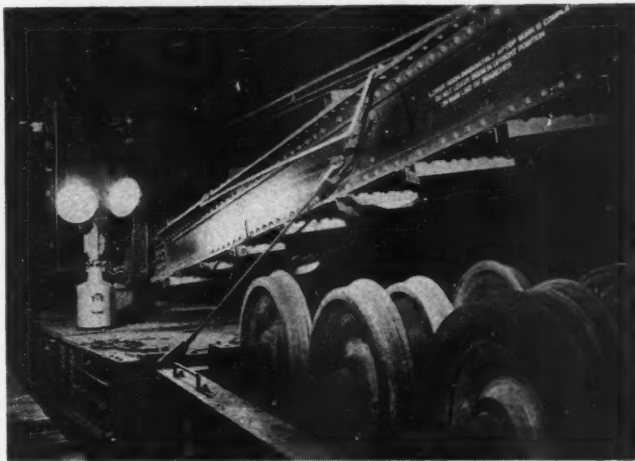
Switch Construction

At the switches where spring mechanisms were installed, the turnouts are No. 16 with 30-ft. points which have reinforcing bars, attached with bolts. A $\frac{3}{4}$ -in. by 8-in. insulated gauge plate was installed on the tie ahead of the points, with a 1-in. by 8-in. insulated plate on the first tie under the points. On these ties as well as the next nine ties, adjustable rail braces were installed. The manual switch-and-lock mechanism, including the automatic facing-point lock, are the T-20 type. No lamps or targets are used on these spring switches, because this protection is provided by the signals.

This installation of centralized traffic control was constructed by the signal forces of the Milwaukee, the principal items of signaling equipment being furnished by the Union Switch & Signal Company.

Portable Floodlights for Emergency Use

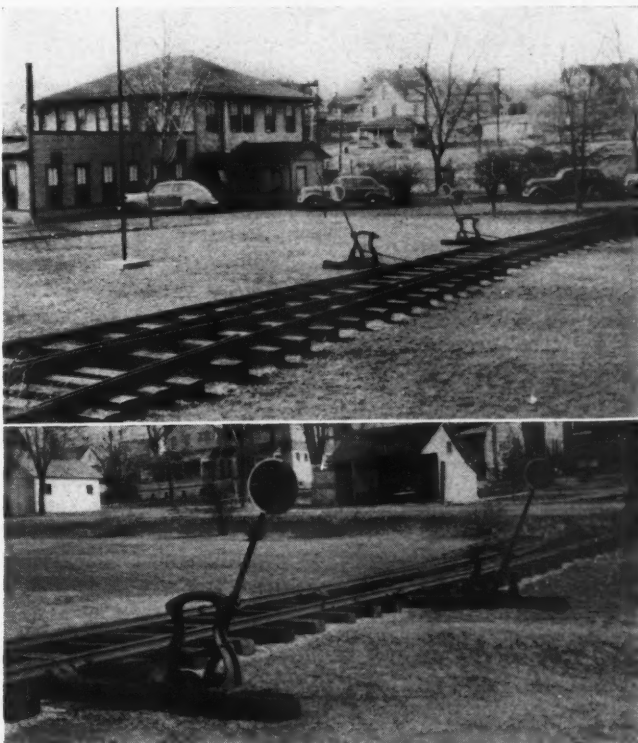
A FULL range of portable, carbide-operated, service lights in units ranging from 1,500 to 16,000 candlepower is available for use on construction and repair work under normal or emergency conditions. The model shown has two 8,000-candlepower floodlights con-



Portable Service Light For Emergency Use

structed on swing joints, thereby making possible the use of lighting over a wide area or the directional use of the full 16,000 candlepower available. The floodlight may be used continuously or intermittently and it is ready for instant service until the carbide charge is exhausted. The manufacturer is the National Carbide Corp., N. Y.

* * *



Two 75-Year-Old Stub Switches And Target Switch Stands Are On Exhibit At the Entrance to the Pennsylvania Division Headquarters of the New York Central at Jersey Shore, Pa. The Bottom View is a Close-Up of the Switch Stands



Photo Courtesy Birds Eye Frosted Foods

In the Larger Cities Quick-Frozen Foods Are Generally Un-loaded from Rail-road Cars into Large Cold-Storage Plants Where They Are Held for Delivery by Trucks to Local Dis-tributors

Railroad Storage Requirements for Quick-Frozen Foods*

Special needs of these products have necessitated that careful attention be given to the problem of providing warehouse facilities for them

DURING recent years the production of quick-frozen food products has increased rapidly, with the result that the railroads have found it necessary to give attention to the problems incident to the handling and storage of such products. An important phase of this problem is the provision of properly designed warehouse facilities. This report deals specifically with this aspect of the problem, although other phases of the general subject of handling quick-frozen products are also given attention.

Quick-frozen products are those foods—vegetables, fruits, fish, poultry, and meats—which are frozen at low temperatures and at such a rate that the ice crystals formed are small, close-grained and not of sufficient size to penetrate the cell walls. Depending on the nature of the product, the freezing temperatures used vary from 0 deg. F. to -90 deg. F. The methods of freezing are quite diverse, including direct contact with cooled metal plates, immersion in a liquid, and freezing in a stream of gas. Freezing is carried out either before or after packing. The purpose of quick freezing is the preservation of selected foods with minimum changes in flavor, appearance and food value.

To obtain the benefits of the quick freezing of fruits, vegetables, and meats, it is necessary that the product be frozen immediately on leaving the tree, plant or killing room. There can be no justification for shipping fruits and vegetables to be quick-frozen from one territory to another before freezing, since the resultant prod-

uct would be inferior if this interim between picking and freezing were introduced. A quick-frozen product that has been partially defrosted should never be replaced in storage in the ordinary manner of piling in a closed stack. Such products should be placed in open stacks, and subjected to ample air circulation so as to reduce the temperature of the product as rapidly as possible. Warehouses should be designed to provide this service.

The quick-freezing industry had its inception in 1924, with its growth showing rapid expansion after 1932. In that year fish and meat products were quick-frozen in relatively large quantities, although quick-frozen vegetables and fruits were just being introduced. One company distributed 10 million pounds of quick-frozen products in 1932 and six years later, in 1938, the total distribution was in excess of 250 million pounds. Since then the production of quick-frozen products has reached substantial proportions, and the demand for these commodities has brought about a sustained and continued development in freezing plants, transportation facilities and storage plants. During one recent 12-month period, 12 new freezing plants were constructed and major additions were made to 15 of the plants previously in operation.

Location of Warehouses

Warehouses for handling quick-frozen products should be served by house tracks so located that, when cars are spotted and opened for unloading, there will be no need for moving or disturbing the car until unloading is completed. The cars should be protected by proper derrails

* From a report presented at the convention of the American Railway Engineering Association in March by a subcommittee of the Committee on Buildings. E. Christiansen, assistant engineer of buildings, Chicago, Rock Island & Pacific, Chicago, was chairman of the subcommittee.

or other safety measures. Speed is essential in loading and unloading, which is generally done with the help of hand trucks. One operator, who owns and operates a large cold storage house, formerly employed a conveyor system for loading and unloading cars but has discontinued its use as he has experienced no difficulty in unloading a car in about 30 min. by hand. Since considerable time is required to arrange and stack the load properly in the car, the conveyor proved to be of no advantage.

The warming of a car while unloading is not of great importance as the load is quickly transferred to a cold room, but it is of considerable importance when loading. For this operation there should be some form of adjustable, telescoping, insulated vestibule connection between the building and the car, which should be sufficiently large to allow for the operation of the doors in both the car and the building. It should be so arranged and be sufficiently tight to allow for a free circulation of low-temperature air between the building and the car. Also, it should be so arranged that it can be connected and disconnected quickly and pushed into the clear when not in use. With such an arrangement, the car can be cooled by the house refrigerating machinery to the required temperature before it is loaded, and maintained at the same temperature until it is sealed for shipment.

Design of Warehouses

The same type of construction specified for general cold storage plants may also be used for structures designed for the handling of quick-frozen products, provided the insulation is increased in thickness to insure constant temperatures of -5 deg. F. to -10 deg. F. for storage and around -30 deg. F. for freezing rooms. The arrangement, number and sizes of the rooms will depend, of course, on the volume of business. Where volume justifies, there should be a receiving room, two or more storage rooms, a freezing room and a work room. Where

the quantities to be stored are large, rooms 50 ft. by 100 ft. in size seem proper for bulk storage, and may be larger if desired. Also, it is suggested that smaller rooms—about 25 ft. by 50 ft.—should be provided for the quick-moving stock, which can be moved in from the large bulk stock rooms, thereby eliminating the necessity for opening the larger rooms too frequently. The large and small storage rooms should connect with each other, and, where possible, both rooms should connect with the receiving room or corridor and the latter should have vestibules or outside doors.

A small room for freezing and for machinery should be provided, which, preferably, should be located near the car-loading door and near the bulk-storage room. Also, the facilities should include a small work room in which to assemble and wrap goods for local delivery. There should also be provision for office and toilets and, where required, a cold-storage locker room for renting to individual customers. For the latter purpose, lockers of various types are used, including built-in lockers of wood or steel framing, enclosed with wire mesh; also factory-built enameled sheet-steel cabinets. The built-in wire-mesh type seems to be more popular with cold-storage operators as the cold air circulates more freely about lockers of this type. The lockers generally have a capacity of about 12 cu. ft. and are about 3 ft. deep from front to back. A ceiling height of 10 ft. is recommended.

The floors, walls and ceilings of all storage and locker rooms and all corridors should be insulated to insure a constant temperature of -10 deg. F. Freezer rooms should be insulated for a temperature of -30 deg. F. The doors to all insulated rooms should be of standard refrigerator-door construction, insulated for the above temperatures, and should be of ample width to avoid interference with any overhang that may be present on the sides of the trucks due to the manner of loading and handling them.

Transportation

It seems that there are many problems yet to be solved before quick-frozen products may be handled satisfactorily from farmer to consumer through a line of independent harvesters, packers, freezers, shippers, brokers, distributors and retailers, because a mis-step in the handling by any unit in the chain may seriously affect the quality of the product and result in loss and damage. When quick-frozen food is taken from the freezer rooms at sub-zero temperatures, shipped a long distance, transferred from cars to the distributor's warehouse with temperatures of 0 deg. F. to -5 deg. F. and from the warehouse to the retailer's store by automobile truck, there is a divided responsibility which can easily result in considerable confusion in the adjustment of claims. There should be some assurance that sealed packages received by the railroad from the shipper contain products which unquestionably measure up to requirements. The cellular structure of fruits and vegetables is preserved in its natural state by the quick-freezing process, but when once subjected to a warmer temperature and then a colder one, it is started on a breaking down process; however, food thus damaged may not be a total loss as it may or may not be sold at reduced prices.

From the time of the introduction of mass shipments of perishable fresh edibles, refrigeration and transportation have been necessarily interdependent. Not only were the early owners of transportation systems deeply interested in the refrigerated shipment of perishables, but they found it necessary to establish storage houses at transfer and consumer centers to provide refrigerated



Photo Courtesy Birds Eye Frosted Foods

Showing a Portion of a Cold-Storage Room for Quick-Frozen Foods. Note Floor Racks and Provision for Air Circulation in the Stacks

distribution of the perishables delivered. Rail transportation designed on any artery system made necessary equally extensive refrigerated warehouse storage facilities. By far the greater amount of rail refrigeration for quick-frozen products has been made with salt ice. In general a bunker mixture of 70 per cent ice and 30 per cent salt is used in what are termed super-insulated refrigerated cars.

Portable Containers

Portable frozen-food refrigerated containers of various sizes, from small packages to box size, have been developed for the successful transportation of quick-frozen foods over short routes. Because of the great size of earlier containers, it was found advisable to develop smaller units that could be handled by one or two men and would not be too high to pass through the door of a baggage car. Usually the small packages are refrigerated with dry ice. Some of them have been developed to a point where one insulated box may contain two storage compartments of varying temperature control. In December, 1938, the Railway Express Agency announced that it would inaugurate refrigerator container service, using the Church CO₂ container for l. c. l. shipments. Methods of handling shipments of this type seem definitely to be in the development stage.

There appear to be two essential requirements for the protection of quick-frozen products during transportation and distribution. These are: (1) The products must be maintained at a temperature of about 0 deg. F.; and (2) temperature fluctuations must be avoided so that the permissible temperature range for storage shall be maintained between 0 deg. F. and -5 deg. F. In order to satisfy these requirements, certain precautions must be taken in addition to that of maintaining the storage space within this temperature range.

The ability of refrigerator cars to carry quick-frozen commodities at low temperatures is assisted materially by placing the frozen products in a car in which the temperature is already at zero or lower. Hence, it is necessary that means be provided for cooling the car before loading and to maintain the car, the storage space and the products at as nearly as possible the same temperature during loading. To accomplish this, the distance between the storage rooms and the car should be reduced to a minimum and should be protected as mentioned previously, by an insulated enclosed runway. The same considerations apply when frozen products are loaded from storage into trucks for retail distribution.

To avoid fluctuations in temperature due to possible differences between the storage rooms and adjoining spaces, it is important that the stacking of quick-frozen products against the walls of adjoining rooms or against outside walls shall be avoided. For the same reason it is essential that floor racks be provided. Unusual air circulation among stacks should be avoided as it will cause excessive evaporation of moisture from the products. Unit coolers are sometimes the cause of considerable loss of moisture during storage.

Conclusions

No special provision in terminal or local freight warehouses is recommended for handling quick-frozen products. In the larger cities cars are generally unloaded into large cold-storage plants where the bulk storage is held until it is delivered by automobile trucks to the local distributors' small warehouses. The trade in the smaller cities is supplied by l. c. l. shipments from the cold-storage plants in the larger cities, and the products

are hauled by trucks to small local cold storage plants or direct to the retailer. Retailers selling the advertised brands of quick-frozen foods are provided with refrigerator cases made for that purpose, which are capable of holding the food within the required temperature range for several weeks.

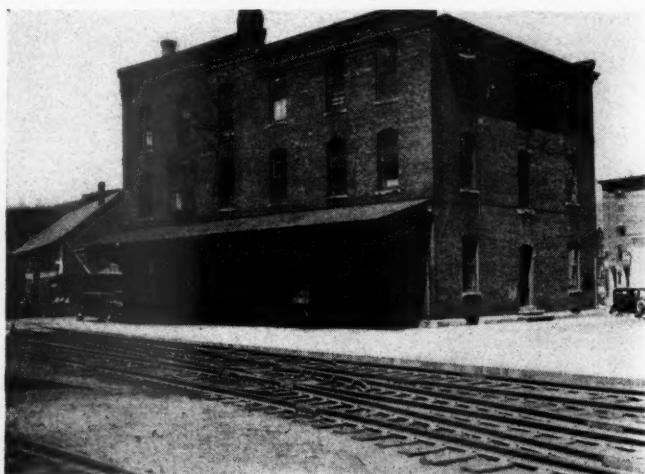
Chesapeake & Ohio Receives Twenty Coaches

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tanks located beneath the car floor, and the standard overhead evaporator unit of the car builder, arranged for both cooling and heating, located over the toilets at one end of the car. Conditioned air is delivered to outlets in the Multi-Vent ceiling panels. Vapor control equipment is installed for cooling and heating. The floor heat is Vapor steam heat, including copper unit-fin-type radiation with thermostatic control. Vapor steam-heat couplers and flexible metallic conduit are used with 2-in. Gold valves. The steam train line is 2 in. extra-heavy wrought iron and Wovenstone insulation is applied over all steam pipes and fittings underneath the car. Four Garland exhaust-type roof ventilators with Auer registers are installed in each smoking compartment. There is also one over each toilet room and one at the switch locker. Heater-pipe guards are curved and continuous, terminating approximately 1½ in. above the floor, with perforations in the vertical face only. They are applied high enough to facilitate cleaning underneath.

Air brakes are New York schedule UC-1-18 type. Blackall drop-handle hand brakes are applied in each vestibule with Peacock hand-brake boosters. The trucks are the General Steel Castings six-wheel straight-equalizer type, having inside side bearings. The wheel base is 11 ft. The axles have 5-in. by 9-in. journals, which are fitted with standard A. A. R. journal bearings. Journal boxes are the National Malleable & Steel Castings Company's cast-steel pedestal type with malleable-iron lids. The Armco multi-wear wrought-steel wheels are 36 in. in diameter. The treads were ground after the wheels were mounted on the axles. The truck center pins are of the Miner locking type and Stucki roller side bearings are used. The truck clasp brakes are the A. S. F. Simplex type.

* * *



General Offices of the Montpelier & Wells River and the Barre & Chelsea—a 44-mi. Short Line Combination—Are Located in the Passenger Station in Montpelier, Vt.

NEWS

A.A.R. Board Hears Eastman and Staff

April meeting was largely a series of conferences with ODT officials

Directors of the Association of American Railroads, holding their regular monthly meeting in Washington, D. C., on April 24, spent most of the day discussing various wartime transportation problems with Director Eastman of the Office of Defense Transportation and various members of his staff.

Discussions with Mr. Eastman are understood to have been concerned in the main with the equipment situation, in which connection the ODT director reiterated his dissatisfaction with the car and locomotive program recently authorized by the War Production Board, and told of his plans to seek modifications at the further hearing which WPB accorded him on April 28. Among other things, Mr. Eastman is reported to have been concerned about the supply of open-top cars to move into New England coal which formerly moved by coastwise steamship lines.

ODT staff members who accompanied Mr. Eastman included Otto S. Beyer, director of the Division of Transport Personnel; V. V. Boatner, director of the Division of Railway Transport; John W. Barriger, associate director of that Division and federal manager of the Toledo, Peoria & Western; and Leo M. Nicholson, director of the Division of Storage. Mr. Nicholson and a representative of the War Department who accompanied him discussed with the A. A. R. directors problems in connection with the provision of facilities for storage in transit of war supplies destined for export.

Meanwhile, Mr. Beyer had presented his views with respect to what the railroads should do to assure themselves an adequate wartime supply of manpower; while Mr. Boatner held a meeting with his advisory committee which is composed of several members of the A. A. R. board. Mr. Barriger was on hand to discuss problems which have arisen in connection with the handling of the present passenger traffic.

It was said that little A. A. R. business was transacted at the meeting, although it was decided that the so-called "grand circle" fares which were first established in the spring of 1939 will be discontinued on June 1. This is the plan which has enabled travelers to go by rail from their homes to both coasts and return for a coach fare of \$90 or a first-class rate of

Land-Grant-Rate Repealer Recommitted by House

The House of Representatives on April 29 recommitted to its Committee on Interstate and Foreign Commerce the bill sponsored by Chairman Lea of the committee for the purpose of repealing remaining provisions of the land-grant-rate law. This action, coming after debate which indicated considerable opposition to the measure as drawn, would seem to have dimmed prospects for enactment of such legislation by the present congress.

\$135 plus special Pullman rates of \$45 for a lower berth and \$34.50 for an upper. Also, it was announced that the Eastern railroads will not install their usual summer excursion rates this year; although they will participate in excursion-rate tariffs published by Western roads for travel to and from points in the West.

C. & E. I. has 184 Acres of "Victory Gardens"

A total of 184 acres of land on the right of way of the Chicago & Eastern Illinois has been planted for "victory gardens." The railroad has made unused land on its right of way available to employees and others who wish to turn the ground into useful production. Most of the land being worked is planted as truck gardens, although quite a few acres have been planted in corn.

Critical-Materials Data Eliminated from Commodity Statistics

The Interstate Commerce Commission has issued an order stipulating that railroads shall omit from their quarterly reports of freight commodity statistics data on "strategic and critical materials." The commission acted upon advices received from the Bureau of the Budget that such information should be suppressed in order to avoid revealing "the current or prospective situation."

Effective with reports for the current year, the order directs the omission of data relating to the following commodities: Copper ore and concentrates; lead ore and concentrates; zinc ore and concentrates; crude rubber (not reclaimed); copper; lead; zinc; aluminum; alcohol; sulphuric acid; explosives. "The data omitted from the individual classes of commodities," the order says, "shall be included in the grand totals . . . but not in the totals for their respective groups."

More Tank Car Records Broken

Carriers haul 599,500 barrels of oil daily into eastern seaboard states

Tank car movement of oil into the east coast area continued its record-breaking climb during the week ended April 18, when it reached a new high of 599,500 barrels daily, according to an announcement by Petroleum Coordinator Harold L. Ickes. This was an increase of 2.2 per cent over the preceding week, when the movement averaged 586,350 barrels, and marked the seventh consecutive week that a new record has been established.

Oil shipments by rail from California to the Pacific Northwest also reached new record heights during the week, increasing 32 per cent over the previous week—from 18,200 barrels daily to 23,980 barrels daily.

In moving 599,500 barrels each day into the east, the 20 oil companies participating in this movement reported to Deputy Coordinator Ralph K. Davies that they loaded a total of 18,651 cars. Including the cars which were on the way back west for re-loading, this means that about 44,000 tank cars are engaged in the east coast service, it was pointed out.

On the basis of an average of 225 barrels per car, the 18,651 loaded cars carried the equivalent of 4,196,475 barrels of petroleum and petroleum products. During the previous week, 18,243 cars were loaded, or the equivalent of 4,104,675 barrels. The total number of cars then involved in the service was about 43,500, according to Mr. Ickes.

The seven companies participating in the northwest movement, which is still relatively new, reported loading a total of 746 cars during the week, compared with 566 cars in the week ended April 11. Allowing for the time required for cars to return to California, after unloading, it is estimated that 1,825 cars are now engaged in the Pacific Northwest service.

Further reflecting the inadequacy of transportation outlets from the Gulf coast producing area, Mr. Ickes has recommended reduced rates for the daily production of all petroleum liquids by states during the month of May. Mr. Ickes' schedule calls for national production at the total rate of 3,474,500 barrels daily, which is nearly 200,000 barrels less than the recommended daily rate for April, and considerably under the Bureau of Mines forecast of

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Seeks Broad Local Transport Program

Eastman calls for passenger transportation set-up on nationwide basis

Organization on a nationwide basis of emergency passenger transportation programs such as those already operating in several communities was called for by Director Eastman of the Office of Defense Transportation in letters sent April 28 to all state governors and to mayors and other chief executives of cities and towns with a population of 10,000 or more. The plan proposed by Mr. Eastman has two main objectives—to prolong the life of all transportation facilities now in use, and to increase the efficiency of mass transportation.

Three principal methods for accomplishing those objectives were suggested, as follows: (1) Systematic staggering of business, school and working hours; (2) group riding in private automobiles on a planned neighborhood-by-neighborhood basis; and (3) improved regulation of local traffic to make possible more efficient movement of passenger vehicles, both private and commercial. The ODT director told the governors and mayors that "any breakdown in our local transportation facilities, including the necessary use of automobiles to get war workers to their jobs, will seriously interfere with the war production program." Thus, "immediate steps must be taken by each state and by each community to insure the continued and efficient operation of all such facilities essential to war production and to the maintenance of essential civilian activities."

ODT's Division of Local Transport, headed by Guy A. Richardson, has drawn up a master plan designed to provide each community with a basis for setting up the desired program. "With modifications to meet local conditions, it is applicable to all communities," Mr. Eastman said. Responsibility for national direction and coordination of the program has been assumed at Mr. Eastman's request by the National Highway Traffic Advisory Committee to the War Department, under the chairmanship of Commissioner of Public Roads Thomas H. MacDonald. Each governor is requested to place administration of the program in the hands of the State Highway Traffic Advisory Committee and to designate the chairman as liaison between the state and national committees. The mayor or other chief executive of each city and town involved is requested to appoint an administrator to take charge of the program locally.

Relief for Tank-Car Owners

Acting at the request of the Office of Defense Transportation, railroads this week filed with the Interstate Commerce Commission a tariff which relieves tank-car owners of penalty payments for excess empty mileage. The tariff, published on five-days notice, became effective May 1. The objective, said an ODT statement, was "to relieve owners of tank cars of financial

A Shipper Reports Result of Drive to Conserve Freight Cars

The Armstrong Cork Company reports that 574 unused demurrage credits were turned back to the railroads during March at its floor division factory as a result of the company's drive to help conserve railroad equipment by speeding up the unloading of freight cars. In addition, the company stated that outbound cars in March averaged 62,879 lb., as compared with an average of 48,669 lb. in January, an increase in loading of 29.2 per cent. Inbound cars of raw materials from the company's Fulton, N. Y., factory averaged 40,383 lb. per car in March, an increase of 44.2 per cent—or an estimated saving of 75 freight cars during the month.

burdens resulting from the shift of these cars from normal routes to emergency service."

"The railroads," the statement went on to explain, "customarily levy a charge for every mile a tank car moves empty in excess of the miles it moves loaded. Under normal conditions, tank car owners have been able largely to equalize empty and loaded mileage, thus avoiding payment of penalties. Wartime traffic requirements have made it necessary to shift cars from one type of service to another and from one area to another to engage in emergency movement of petroleum and other products, with the result that tank car owners have incurred substantial penalty charges through the shipment of empty cars . . . The excess empty mileage charge was likewise removed during World War I . . ."

New Haven Diesel-Electrics— A Correction

The blowers which provide air for the traction motors on the New York, New Haven & Hartford 2,000-hp. Diesel-electric locomotives described in the April 11 issue of the *Railway Age* were furnished by the B. F. Sturtevant Company, and not by the American Blower Company as stated on page 752.

Sandy Hook Boat Service Ends

The famous "Sandy Hook Line" boat service of the Jersey Central between New York City and Atlantic Highlands, N. J., will not operate this summer. War conditions have led to the suspension. Additional all-rail service will be provided to the New Jersey seashore resorts to replace the trains that for more than half a century have met the boats at Atlantic Highlands through the summer months.

The Sandy Hook route was very popular in pre-World War I days. With substantial daily commuter traffic and a heavy week-end and holiday excursion business, its steamers often were crowded to capacity. In recent years, however, other forms of transportation have captured much of the route's patronage, and only one boat, the "Sandy Hook," has been operated.

Truckers Get Some Orders from ODT

Will have to load to required minima or divert freight to other carriers

Four general orders designed to conserve motor transportation facilities and equipment by requiring the trucking industry to "put its over-the-road freight operations on a more efficient basis," and curtail local delivery services were issued on April 23 by Director Eastman of the Office of Defense Transportation. They are General Orders 3, 4, and 5, applying in turn to over-the-road operations of common, contract, and private truckers; and General Order 6, which applies to local-delivery operations.

The new over-the-road regulations,* effective June 1, stipulate among other things that, except for certain vehicles which are exempt, all trucks will be expected to be loaded to capacity on outgoing trips and to at least 75 per cent of capacity on the return trips. Compliance by contract and private truckers is expected to involve, in the main, a revision of shipping schedules. For common carriers General Order 3 sets up seven possible procedures, as follows: Alternate or stagger schedules; exchange shipments or property; pool shipments, revenues or both; jointly load or operate trucks; divert shipments, lease equipment, operate joint terminals or pick-up or delivery vehicles; establish arrangements with other carriers for the interchange of equipment; appoint joint agents to effect consolidated operations and collect and distribute revenues therefrom. With respect to the foregoing, carriers contemplating joint action are warned that no such plan may be put into operation without the permission of the Interstate Commerce Commission, the proper state regulatory authority, or the ODT.

Just as the railroads under ODT General Order 1 will be required to divert light l. c. l. loads to other carriers, so also will the common carrier truckers be forbidden to wait more than a specified period for tonnage, i. e., they will be required to divert to other carriers freight held at a terminal 36 hours or at two or more intermediate terminals for an aggregate of 48 hours, and to accept such diverted freight from other carriers. And the order stipulates that every common carrier "by rail, motor, water or otherwise" shall establish "just, fair and equitable divisions of revenues derived from transportation performed pursuant to this order." ODT will fix divisions where none has been agreed upon or fixed by the I. C. C. or state regulatory authorities.

Exempt from the provisions of the orders are trucks carrying explosives or other dangerous articles; farm trucks; and trucks classified as "special equipment" such as those carrying mounted machines. Also, trucks in the maintenance of public utilities, those operated exclusively in the furtherance of public health and safety, and trucks operated exclusively in the interests

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May Have to Keep Two Sets of Books

So say roads, unless Treasury modifies stand on change to depreciation accounting

Unless the Commissioner of Internal Revenue can be persuaded that he should modify what the railroads regard as "arbitrary and unreasonable" conditions, the carriers would probably be prevented from making for income tax purposes a change from retirement to depreciation accounting, although required by the Interstate Commerce Commission to make such change for other purposes. This is the position taken by the special committee of the Association of American Railroads in a brief which has been filed with the Bureau of Internal Revenue.

The brief was filed after conferences wherein the railroad representatives had discussed with representatives of the Treasury and the Bureau the proposed I. C. C. order requiring railroads to inaugurate group depreciation accounting in respect of their road property commencing January 1, 1943. The government representatives stated that if the proposed order should become effective, the Treasury would be disposed to follow I. C. C. findings regarding bases and rates, but the bases used by the I. C. C. might not in all cases be the same as the Treasury was obligated to use under the provisions of the Internal Revenue Code.

With respect to the terms and conditions under which consent to change the accounting method for income tax purposes would be granted, it was stated that the commissioner in such cases had required the following terms and conditions:

Permission will be granted to file the returns covering the calendar year . . . and subsequent years on the basis of depreciation accounting provided you irrevocably agree (1) that reserves for depreciation shall be computed as of January 1, . . . on all depreciable property from dates of installation or acquisition on the basis of the estimated useful lives and depreciation rates to be established, (2) that the remaining sum to be recovered through depreciation allowances shall be limited to the cost or other basis, less the depreciation so accrued, and (3) that neither the change of method nor the amounts of depreciation so accrued shall have any effect on taxable net income for any year ending prior to January 1, . . .

With respect to the foregoing, the railroad brief asserts that "Any requirement that as a condition to adopting a depreciation basis for road property, the railroads set up a reserve representing past accrued depreciation on existing units of property would place the railroads at a disadvantage as compared with other taxpayers which have already had the benefit of depreciation deductions, and would forever deprive the railroads of deductions for income tax purposes in an aggregate amount equal to that of the depreciation reserve thus established."

Various methods for allowing past depreciation are possible, the brief suggests, and it lists the following: (1) Allowing losses on retirement on all items of existing road property, adjusted only for depreciation, allowed or allowable, subsequent to the effective date of the change to depreciation accounting; (2) adopting the

average life group plan of depreciation accounting and taking the unadjusted base and allowing rates each year based on the average life of the existing group computed from the effective date of the depreciation accounting to be adopted; (3) adopting the minimum rate group plan of depreciation accounting including the right to losses on retirement less allowed depreciation. Without discussing the merits of any of these methods, the railroad committee would anticipate no difficulty "in agreeing on a reasonable method of securing the desired result."

The brief also argues that "there is no justification for requiring an adjustment of invested capital for alleged past depreciation in computing excess profits taxes." It then goes on to say that the third condition is "clearly inconsistent" with the others when it stipulates that neither the change of method nor the amounts of depreciation so accrued shall have any effect on taxable net income for any prior year.

Burlington Displays "Old Glory" on Dining and Lounge Cars

The Chicago, Burlington & Quincy is displaying the United States flag "for the duration" in nearly 100 dining and lounge cars. According to Edward Flynn, executive vice-president of the road, "It seems only proper that the inspiration of 'Old Glory' should accompany soldiers, sailors, marines and others traveling on nearly every train."

Hours-of-Service Reports

The Interstate Commerce Commission has issued a statistical analysis of monthly hours-of-service reports covering all railroads which reported during the year ended June 30, 1941, instances in which employees were on duty for periods other than those provided by the Federal Hours of Service Act. The analysis was prepared by the commission's Bureau of Safety.

Commutation Fares in New York

The Interstate Commerce Commission has instituted an investigation of the refusal of the New York Public Service Commission and the Transit Commission (which has jurisdiction within New York City) to permit railroads serving that state to apply the Ex Parte 148 increases to their New York intrastate commutation rates and fares. The proceeding is docketed as No. 28815.

Women as Dining Car Waiters in South Africa

On the South African Railways the dining car and restaurant business is now about double the pre-war volume. Approximately 10,000 meals are served daily, and in December, 1941, the dining car mileage was close to 850,000. Expansion of operations has been handicapped by shortages of equipment and supplies, and particularly of labor—and an innovation which is reported to be working out very successfully is the employment of women as waiters, both in the station restaurants and on the "de luxe" Blue trains.

ODT Head Before Truman Committee

Eastman sees carriers handling 12 to 15 per cent more traffic this year

Predicting an increase this year in carloadings of 12 to 15 per cent over those of last year, Joseph B. Eastman, Director of the Office of Defense Transportation, told the Truman defense investigating committee on April 23 that he felt the railroads would be able to handle this increased amount of traffic despite a "tight" situation in some types of equipment. Mr. Eastman had been called before the Senate committee to bring it up-to-date on the question of transportation and its relation to the war effort.

At the same time, Mr. Eastman reiterated his oft-expressed opinion in answer to a question from Senator Burton, Republican of Ohio, that he saw "nothing ahead now" to compel the government to take over any systems of transportation as it took over the railroads during the First World War.

Beginning his overall discussion of the transportation picture with the railroad freight situation, Mr. Eastman said that the carriers were much better prepared for this war than the last one in that they learned from the last one the fact that cars must be kept in circulation and not used for storage. The turnaround time of cars, he declared, has notably decreased, and there is no shortage of cars at the present time except for a "tight" situation which is beginning to develop with open top cars, refrigerator cars, and locomotives.

In regard to locomotives, he noted that because of the east coast oil situation due to submarine sinkings and tanker diversions, the carriers are now hauling some 600,000 barrels of oil a day as compared with 70,000 barrels in December. This movement, he continued, is using 850 locomotives, thus causing a tight situation in some localities. He also pointed out that bananas are now moving by rail from New Orleans to New York, thus throwing an added burden on the railroads. In addition, he told the committee that there has been a reduction of 40 to 50 per cent in the coal movement by water to the New England ports, and his office hoped to divert some of the lake cargo coal to rail movement to speed up the hauling of iron ore.

The ODT chief listed three ways of meeting the problem of increased traffic on the railroads:

1. More equipment.
2. Better use of existing equipment.
3. Reduce the amount of railroad work.

Discussing the third subject first, Mr. Eastman said that the carriers could increase circulatory speed of cars, provide longer sidings and better signal systems, provided steel and copper were available, avoid congestion of cars, inventory the locomotive situation, classify trains better, and utilize trainload movements to a great-

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Carriers Endorse New "Chandler" Bill

Support voluntary reorganization measure now sponsored
by McLaughlin

Hearings on H. R. 6840, the bill recently introduced by Representative McLaughlin, Democrat of Nebraska, which would reenact chapter 15 of the Bankruptcy Act providing for voluntary reorganizations of railroad companies, got under way before a House judiciary subcommittee on April 29. The previous act, which was known as the Chandler Act, expired on July 31, 1940. The Baltimore & Ohio and the Lehigh Valley were the principal roads which effected voluntary interest readjustments under its provisions. Details of the original act were set out in the *Railway Age* of July 29, 1939, page 193.

At the opening session of the hearings it appeared that all of those representing railroad companies and railroad security holders favored reenactment of the Chandler Act with certain minor amendments. Among those appearing at the first day's hearings were R. V. Fletcher, vice-president of the Association of American Railroads; Thomas L. Ennis, general counsel for the Delaware & Hudson; Col. Henry L. Anderson, co-receiver of the Seaboard Air Line and special counsel for the Baltimore & Ohio in its interest readjustment case under the provisions of the Chandler Act; Walter McFarland, assistant general counsel of the Chicago, Burlington & Quincy, who read a statement on behalf of Ralph Budd, president of the road; Fred M. Oliver, counsel for the Mutual Savings Bank Association and the Railroad Security Owners' Association; Charles True Adams, chairman of the American Bar Association's Committee on Bankruptcy; and Edward F. Lacey, executive secretary of the National Industrial Traffic League.

Judge Fletcher told the subcommittee that the A. A. R. favored the reenactment of the legislation on the ground that there was a real need for such a provision in the bankruptcy statutes. In his opinion, the section 77 procedure "takes a long time, is an expensive process, is injurious to railroad credit, and is generally objectionable." He concluded by saying that the pending bill is "highly desirable if a railroad company is solvent."

Mr. Ennis urged the passage of the legislation and asked the subcommittee to amend the present bill so as to make it applicable to railroad holding companies of the type of the Delaware & Hudson Company which owns all of the stock of the Delaware & Hudson.

Colonel Anderson, who has had extensive experience with the operation of the Chandler Act during the B. & O.'s reorganization, appeared at the specific request of the subcommittee, and recommended that the legislation be made permanent. Although there were some imperfections in the old act, he declared, yet it served as a "life-saver" to the B. & O., and he would rather take the present bill as drawn than risk

the chance of defeat in either branch of Congress.

Mr. McFarland read a brief statement by Ralph Budd which urged the favorable consideration of the bill, pointing out that the Burlington's experience in getting assents to its pending readjustment plan for the Colorado & Southern demonstrated the need for such a bill which would bind minorities without the need of buying them off before a readjustment plan could be effected.

Mr. Oliver told the subcommittee that his clients agreed entirely with the position of Judge Fletcher that the legislation was badly needed.

Although Mr. Adams favored the general idea of the bill as drawn, he thought that some changes should be made which would more adequately protect the rights of minorities. It was his belief that with the enactment of the pending bill as a permanent part of the bankruptcy statute, it would mean the end of any section 77 reorganizations because of the fact that no railroad company would use that long-drawn-out and expensive procedure when it could avail itself of the voluntary provisions of the pending measure.

The National Industrial Traffic League, through Mr. Lacey, endorsed the legislation as one method of helping to preserve a sound transportation system for the country in time of national emergency.

The hearing were adjourned until next week when Interstate Commerce Commission Mahaffie and representatives of other government departments concerned are scheduled to appear.

NMB Mediator Joins WPB Staff

Ernest A. McMillan, whose appointment to the National Mediation Board's staff of mediators was announced in the *Railway Age* of April 18, page 795, has been transferred to the Ship Stabilization Committee of the War Production Board. At the time of his appointment to the NMB staff, Mr. McMillan was a member of the State Board of Harbor Commissioners of California.

Water Carriers Won't Forfeit Rights by Cooperating with ODT

Water carriers have been assured by the Interstate Commerce Commission that they will not impair their "grandfather" rights if compliance with requests or requirements of the Office of Defense Transportation involves interruptions of the services upon which such rights are based. The assurance came in the form of a letter which Commissioner Porter wrote on April 24 to Director Eastman of ODT.

Commissioner Porter's letter was a reply to one written to Acting I. C. C. Chairman Aitchison by Mr. Eastman after the Great Lakes Transit Corporation had raised the question in connection with the conversion of several of its vessels into grain carriers. Mr. Porter said he had discussed the matter with other members of Division 4, and was authorized to say that compliance by a water carrier with any request or requirement of ODT would be recognized by the I. C. C. as an interruption of service "beyond the control of the carrier."

Army Finds Roads Doing "Very Well"

But Somervell calls ocean shipping the "bottleneck of our war effort"

While telling an April 29 press conference that "transportation is going to be the bottleneck of our war effort," B. B. Somervell, commanding general of the Army's Service of Supply, at the same time made it plain that ocean shipping will be the limiting factor and that his remark had no reference to rail transportation. "Our rails are doing very well," General Somervell said in this connection, adding, however, that "we and everyone else concerned are very much alert to the load that is going to come on the rails."

Previously the general had tossed other bouquets to the railroad, saying: "The job that's been done in transportation so far by the Army in collaboration with the railroads, ship operators, the Maritime Commission, and the War Shipping Administration has been absolutely unprecedented in size; and it has been done with unprecedented smoothness—thanks to the very effective cooperation we have with the Association of American Railroads. They have a large group which they pay and maintain in our Chief of Transportation's office. The job has been done with an efficiency that wasn't even approached in the last war."

While General Somervell's press conference was devoted largely to his explanation of the organization of the services of supply, the War Department at the same time announced that the Army is establishing special agencies, designated as "Port Agencies," in the principal seaports of the United States "to coordinate and expedite shipments of war supplies to all United Nations." These agencies will be staffed with Army officers and civilians who are experienced in export shipping; they will function "under the direct supervision of the Chief of Transportation Service (Brigadier General C. P. Gross), and work in close cooperation with the Office of Defense Transportation and the War Shipping Administration." The objectives are "to prevent congestion within the port areas, to prevent improper use of ground storage, to assure expeditious and orderly loading and release of railway cars, to assure proper loading of cargoes in accordance with existing priorities, and to assure expeditious and orderly loading of ships to achieve a minimum time in port for each vessel."

"To prevent the possibility of various ports becoming 'bottlenecks' in the shipment of war supplies overseas," the War Department statement went on, "the Army Port Agencies will arrange a system whereby material can be routed to any conveniently located port where empty bottoms are immediately available. It is also planned to utilize the holding stations of the Army transportation organization where war supplies en route to a coastal port may

(Continued on page 875)

Division 3 Upheld on All-Freight Rates

Decision striking down tariffs designed to get forwarder traffic is affirmed

Reporting on reconsideration of the proceeding involving proposed all-commodity rates from New York, Philadelphia, Pa., and Baltimore, Md., to Chattanooga, Tenn., Atlanta, Ga., Birmingham, Ala., and from and to intermediate points, the Interstate Commerce Commission has affirmed Division 3's previous finding that such rates would be "unjust, unreasonable, unduly prejudicial and preferential, and unjustly discriminatory." Likewise affirmed is Division 3's action striking down the any-quantity rates proposed "as a measure of self-preservation" by protestants to the all-commodity rates.

Dissents of Acting Chairman Aitchison and Commissioner Miller were noted, as were Commissioner Mahaffie's concurrence in the results of the majority report and the fact that Commissioner Splawn did not participate in the disposition of the proceeding. Commissioner Patterson wrote a brief concurring-in-part expression. The case is docketed as I. & S. No. 4827, and Division 3's report was reviewed in the *Railway Age* of May 3, 1941, page 765.

As there noted, the all-commodity rates were proposed primarily to obtain for the railroads approximately 500,000 lb. of forwarder traffic moving each week by truck from New York to Atlanta; while another actuating motive was a belief that unless such rates were published Sears, Roebuck & Company would handle its traffic from New York, Philadelphia, and Baltimore in its own trucks. In the former connection the commission notes that the forwarder traffic is being handled under a joint-rate arrangement between the forwarder (Universal Carloading & Distributing Company) and Ackers Motor Lines, Inc. It adds that such joint-rate arrangements have been condemned by the commission, although the effective dates of its orders has been postponed from time to time because of legislation pending in Congress for the regulation of forwarders. "Respondents admit," says the report, "that were Universal compelled to pay legal rates there would be no existing competition necessitating the establishment of all-commodity rates." With respect to the Sears, Roebuck & Company traffic, the commission observes that "conditions have changed so materially that it is doubtful whether the inauguration of private truck operations by it is now feasible."

In its general discussion leading up to its adverse findings on the proposed rates, the commission points out that prior to the passage of the Transportation Act of 1940 the burden was not upon carriers proposing a reduction in rates to show that the proposed rates would be just and reasonable. In other words the carriers formerly bore the burden of proof only with respect to proposed increases; now they bear it with respect to any proposed change in a rate.

"The Transportation Act of 1940," the commission continues, "imposes upon us the duty to scrutinize rates purportedly made on the out-of-pocket cost or minimum rate theory to meet alleged competition and to reject them even if they yield something above all costs when they are less than prevailing reasonable rates prescribed by us, in the absence of proof that they are required to meet compelling competition and that they will not foster unsound economic conditions in transportation among the several carriers or otherwise contravene the policy declared by Congress in the 'National Transportation Policy.'"

N. Y. C. Would Delay Divorce from Boat Line Until War's End

The New York Central has asked the Interstate Commerce Commission to extend for the duration of the war the time given that road to divest itself voluntarily of that interest in the Nicholson Universal Steamship Company, a Great Lakes operator, which the commission has found to be in violation of the so-called Panama-Canal-Act provisions of the Interstate Commerce Act. The petition reveals that Nicholson's boats are being taken over by the Maritime Commission for conversion into ore and grain carriers.

The N. Y. C.-Nicholson tie-up came about by reason of the relationship of N. Y. C. affiliates to the United States Freight Company, parent corporation of the Universal Carloading & Distributing Company. The commission's report in the proceeding, which is docketed as No. 28162, was reviewed in the *Railway Age* of November 8, 1941, page 753.

Representation of Employees

Certifying results of recent elections on the South Buffalo, the National Mediation Board has designated the American Train Dispatchers Association as the representative of that road's train dispatchers, and the Railroad Yardmasters of North America as the representative of the yardmasters. In another recent election the stewards in the marine service of the Petaluma & Santa Rosa chose the Inland Boatman's Union of the Pacific.

Results of recent elections in representation-of-employees disputes have been made public by the National Mediation Board. On the Baltimore & Ohio, the National Council of Railway Patrolmen's Unions, American Federation of Labor, won the right to represent patrolmen, including sergeants and watchmen. Following an election on the Union Railroad, the Board certified that yardmen (conductors, brakemen and switchtenders) do not desire any change in their representation by the Order of Railway Conductors, which got 352 votes as compared with 324 for the Brotherhood of Railroad Trainmen.

The Brotherhood of Railroad Carmen of America, operating through the Railway Employees Department, A. F. of L., has won the right to extend its coverage of Fruit Growers Express carmen to cover piece work inspectors. On the Alameda Belt, the Switchmen's Union of North America won the right to represent yard service employees.

McKellar Would Scare I.C.C., Too

Tries a bit of that technique which worked so well on Transport Board

Senator McKellar, Democrat of Tennessee, whose appropriation-withholding threats drew from the Transportation Board of Investigation and Research the commitment to make its study of the inter-rail freight rate structure, recently tried a bit of the same technique on Secretary W. P. Bartel of the Interstate Commerce Commission.

Publication this week of hearings on the independent offices appropriation bill before a subcommittee of the Senate appropriations committee reveals how the Tennessee solon suggested that the commission's war activities appropriation should perhaps be eliminated if something were not done about a then-impending service order relating to the use of double-deck stock cars.

The commission issued the service order (No. 71), as noted in the *Railway Age* of March 14, page 564. The order among other provisions forbids railroads to furnish two single-deck stock cars when one double-deck car is ordered and not available and to bill the shipper at the double-deck rate.

Senator McKellar asked Mr. Bartel whether the commission's order "effects an increase in the rates, especially in the southern states, on sheep, calves, hogs, and perhaps some other animals . . . to the extent of about 85 to 90 per cent, which makes it most unfair as between other parts of the country where they have and can furnish the double-deck cars"; and, if "under the pretext of national defense," the commission was "going to let the railroads almost double their rates?" "If you are," declared McKellar, "perhaps we had better strike out the national defense provision." The latter was a reference to a \$232,315 item which the bill provides to enable the commission to carry on its emergency car service work; the item remained in the bill.

During his brief testimony Mr. Bartel told the subcommittee that the commission "has not in the past, and does not now have in its employ any persons engaged in publicity work, and we do not now contemplate that any part of the moneys to be appropriated for the use of the commission for this or the next fiscal year will be spent for publicity purposes."

With the release of the testimony the Senate appropriations committee favorably reported to the Senate H. R. 6430, the independent offices appropriation bill, which carries \$9,476,264 for the Interstate Commerce Commission for the fiscal year ending June 30, 1943. Following a similar policy with regard to all independent agencies included in the bill, the committee cut the commission estimates for travel expenditures by 10 per cent, or a total of \$81,545. The largest single cut was \$21,000 for the traveling expenses of the Bureau of Motor Carriers.

Also included in the bill are the funds

for the elimination of grade crossing work under the Public Roads Administration of the Federal Works Agency. The House had appropriated \$22,000,000 for this work, but the Senate committee reduced this figure to \$16,700,000.

Rail Rates Exempt from Price Control Order

Common carrier and public utility rates are among the prices excluded from the order whereby the Office of Price Administration on April 28 established government control over retail and wholesale prices and rents. In the order—the General Maximum Price Regulation—OPA set the highest prices charged in March, 1942, as a ceiling over “virtually everything that Americans eat, wear and use.” Companion orders paved the way for federal control of rents in 302 defense areas.

The exclusion of common carrier rates comes about by reason of the fact that they were exempt from OPA control under the provisions of the Emergency Price Control Act of 1942.

Supreme Court to Review Western Pacific Plan

The United States Supreme Court at its April 27 session agreed to review the Interstate Commerce Commission's plan of reorganization for the Western Pacific. Various petitions seeking a review of the Chicago & North Western's and the Chicago, Milwaukee, St. Paul & Pacific's commission-approved reorganization plans are also pending before the court, but no indication was given as to whether or not it will review these plans.

The Ninth Circuit Court and the Seventh Circuit Court of Appeals, respectively, have refused to approve plans of reorganization for the Western Pacific and the Milwaukee on the ground that the commission had not made complete findings relative to questions of values and equities so that the reviewing court could definitely see in the new plan that provision for full

compensation under the rule of the Consolidated Rock Products Company case (312 U. S. 510) had been made. The courts, in both instances, sent the cases back to the commission for proper findings. In the third case before the Supreme Court, that of the Chicago & North Western reorganization, the Seventh Circuit Court upheld the determination of the commission where two-thirds of the creditors had approved the plan.

President Calls “Trade Barrier” Conference

Ways and means of removing or suspending for the duration of the war state and local legal restrictions “which are hampering the Nation's war effort” will be considered at the federal-state government conference called by authority of the President to meet in Washington, D. C., May 5 to 7 under the auspices of the Department of Commerce, according to an announcement by Jesse Jones, Secretary of Commerce.

President Roosevelt, in his telegram to the state governors, declared that “the meeting should give specific attention to the fullest possible utilization of labor, transportation facilities, construction capacity, and agricultural products.”

Meanwhile, Senator Andrews, Democrat of Florida, and Representative Lea, Democrat of California and chairman of the House interstate and foreign commerce committee, respectively, have introduced S. 2478 and H. R. 7009, bills which would authorize the President through any appropriate agency to prescribe such maximum size and weight limitations for motor vehicles and combinations of motor vehicles to be applicable to particular highways or portions thereof as shall be deemed necessary in order to facilitate the prosecution of the war.

The conference will include governors of states or their representatives and the heads of various federal war agencies. “Delegates,” read Mr. Jones announcement, “will

be given a clear over-all picture of the complex fabric comprising the mass of state and local legal restrictions, together with specific instances in which they are definitely impeding the operation of the war machine.”

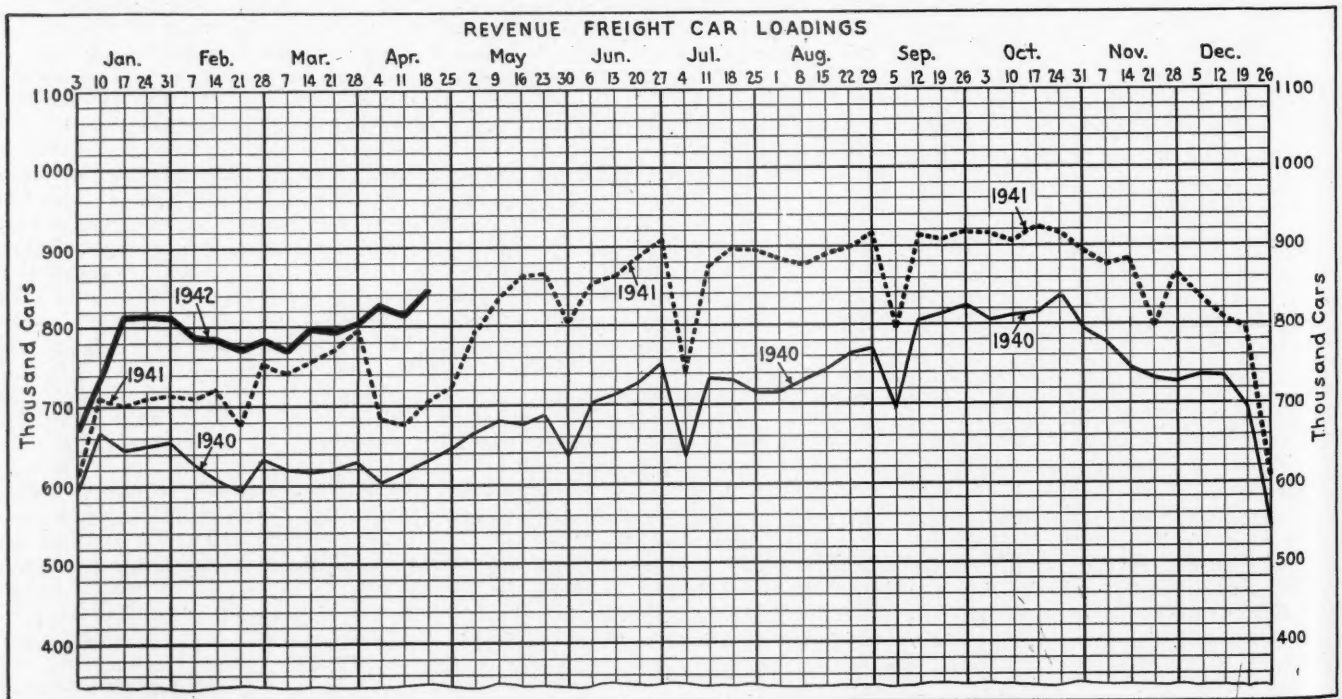
Freight Car Loadings

Loadings of revenue freight for the week ended April 25 totaled 861,353 cars, the Association of American Railroads announced on April 30. This was an increase of 14,791 cars, or 1.7 per cent, above the preceding week, an increase of 139,726 cars, or 19.4 per cent, above the corresponding week last year, and an increase of 216,549 cars, or 33.6 per cent, above the comparable 1940 week.

As reported in last week's issue, loadings of revenue freight for the week ended April 18 totaled 846,562 cars, and the summary for that week, compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loadings For Week Ended Saturday, April 18			
District	1942	1941	1940
Eastern	171,416	152,185	138,327
Allegheny	185,762	151,914	127,803
Pocahontas	56,996	16,969	45,285
Southern	131,534	108,768	98,011
Northwestern ..	119,918	125,856	78,204
Central Western	116,145	102,883	96,994
Southwestern ..	64,791	50,218	43,844
Total Western Districts	300,854	278,957	219,042
Total All Roads	846,562	708,793	628,468
Commodities			
Grain and grain products	36,172	33,512	34,163
Live stock	12,803	11,502	11,304
Coal	166,618	33,404	113,957
Coke	13,925	9,153	7,525
Forest products ..	49,718	40,895	32,096
Ore	58,257	74,345	15,178
Merchandise l.c.l.	129,436	161,009	148,150
Miscellaneous ..	379,633	344,973	266,095
April 18	846,562	708,793	628,468
April 11	814,233	679,808	619,105
April 4	828,890	683,402	602,835
March 28	804,746	793,803	628,921
March 21	796,640	769,984	620,375

Cumulative Total,
16 Weeks ... 12,642,170 11,458,988 10,020,938
In Canada.—Carloadings for the week



ended April 18 totaled 63,838, an increase over the previous week of 931 and comparing with 56,321 in the corresponding week last year, according to the tabulation of the Dominion Bureau of Statistics.

Total for Canada:

	Total Cars Loaded	Total Cars Rec'd from Connections
April 18, 1942	63,838	33,426
April 11, 1942	62,907	30,767
April 4, 1942	57,455	31,687
April 19, 1941	56,321	27,310
Cumulative Totals for Canada:		
April 18, 1942	981,495	509,732
April 19, 1941	870,474	459,636
April 20, 1940	755,661	389,391

ODT Would Convert Cooler Warehouses to Freezers

The Office of Defense Transportation has recommended to the refrigerated warehousing industry that about 11,500,000 cubic feet of space in cooler warehouses be converted to freezer space "in areas where production, processing, and market demands indicate additional facilities are needed." Such a program would increase by about 10 per cent the freezer space which now totals 113,800,000 cubic feet, as compared with 259,000,000 cubic feet of cooler space.

The ODT announcement said that the recommendation was made in anticipation of "an all-time high demand for refrigerated storage space" which is expected next autumn "as a result of increased production of perishable foods to meet military, civilian, and lend-lease requirements." Conversion of between 2,000,000 and 3,000,000 cubic feet is already under way, the announcement also said.

New Haven Issues "Rider's Digest"

In an endeavor to increase the traveling public's understanding of problems currently faced by the railroads during the war emergency, the New Haven is distributing on its trains the first issue of an illustrated eight-page booklet titled "Rider's Digest."

Besides describing the demands being made on the railroad as a result of the war effort, the booklet contains a description of the New Haven's blackout activities, an explanation of train whistle signals, an illustrated quiz, and a "seat hoarder" cartoon which will be appreciated by anyone who rides a train these crowded days.

The primary purpose of this booklet, which will be published monthly, is to keep passengers informed about the road's war-time jobs so that they will be able to appreciate the reason "Why" whenever emergency assignments may interfere with the comfort and convenience to which they have been accustomed.

ODT Appointments

As reported in the *Railway Age* of April 25, page 834, E. R. Hauer has been appointed an assistant director of the Office of Defense Transportation's Division of Railway Transport, in charge of mechanical operations; and Samuel S. Bruce has been appointed a Division of Railway Transport assistant director in charge of coal movement and equipment.

Mr. Hauer was born in Springfield, Ohio, on January 14, 1893. He attended the Virginia Mechanics Institute, and entered railroad service in November, 1907, in the Chesapeake & Ohio's Clifton Forge, Va.,

shops. In 1911 he became a clerk, and in 1912 a machinist's apprentice. In 1916, Mr. Hauer was transferred to Richmond, Va., as a mechanical draftsman, and one year later he became valuation inspector. He was in the United States Army from 1918 until 1920, when he entered the employ of the Lima Locomotive Works as an elevation engineer. Two years later, in 1922, Mr. Hauer was back with the C. & O., serving briefly as roundhouse foreman at Lexington, Ky., and then as chief draftsman at Richmond, a position which he held from the latter part of 1922 until 1929. He was then appointed assistant shop superintendent at Huntington, W. Va., and in 1932 he became mechanical engineer of the C. & O. with headquarters at Richmond. Since 1936 he has been engineer of motive power of the C. & O.-Nickel Plate-Erie-Pere Marquette Mechanical Advisory Committee.

Assistant Director Bruce of the Division of Railway Transport began his career in 1909 in the accounting department of the Conwanshannock Coal & Coke Company, a subsidiary of the Rochester & Pittsburgh Coal & Iron Company. In 1912 he entered the employ of the American Bridge Com-



S. S. Bruce

pany, working on the Isthmus of Panama in various accounting and timekeeping positions until May, 1914. The following month, Mr. Bruce returned to Conwanshannock, and remained in accounting-department positions with that company until March, 1916, when he accepted a position in the accounting department of the Koppers Company. In 1917, he became traffic manager for the Seaboard Byproducts Coke Company, a Kopper subsidiary; and he has been general traffic manager for Koppers since November, 1921.

Eastman Would Defer Consideration of Waterway Tolls Bill

Director Eastman of the Office of Defense Transportation has written Chairman Lea of the House committee on interstate and foreign commerce a letter indicating that he would be opposed to enactment in

the present war period of legislation such as that proposed in H. R. 6886 which was introduced recently by Representative Snyder, Democrat of Pennsylvania, to provide tolls on waterways.

"Regardless of the possible merits of such legislation in normal times," Mr. Eastman said, "the exigencies of the war would appear to preclude any move which might discourage the use of our inland waterways, and I fear this would." The ODT director went on to say that he would like to be heard if the bill is to be pressed seriously during the war period. However, it is not anticipated that it will, as Mr. Lea has indicated his agreement with the Eastman view.

Pullman Tariff to Charge for Reservations Not Released

The Pullman Company has filed a tariff with the Interstate Commerce Commission, to become effective May 20, which provides that Pullman tickets will not be redeemed unless the space reserved is released for resale, and the number of the ticket erased from the diagram in advance of the departure of the train for which it was sold. Travelers who miss connections due to delayed arrival of a connecting train will secure refunds as heretofore.

According to George A. Kelly, vice-president, military forces at times require more than a third of the entire sleeping car fleet, and the new rule is necessary to prevent needed space from being unused. Last year the Pullman Company reimbursed 33,000 passengers more than \$244,800 for unused tickets where the reservations had not been canceled. In many instances the accommodations were needed and would have been occupied by other travelers.

Claim Division Celebrates Semi-Centennial

The completion of 50 years as a national body was celebrated by the Freight Claim Division of the Association of American Railroads, at its annual meeting at Chicago, on April 28 and 29. Recognition of the golden anniversary, which occurred on March 4, 1942, was given at an evening session on April 28. Participating was a special committee of all living past chairmen of the Freight Claim Division and past presidents of its predecessor, the Freight Claim Association, several of whom read papers covering the activities of the organization for selected periods.

Problems facing freight claim and loss-and-damage-prevention officers as a result of the war were discussed during the convention. The principal speaker was Carl R. Gray, Jr., executive vice-president of the Chicago, St. Paul, Minneapolis & Omaha. A more complete report of this meeting will appear in the next issue.

Public Convenience Secondary to Rubber Conservation, Eastman Holds

Interpreting his General Order No. 2, which was issued March 21 to prohibit further substitution of buses for street-car or train service on existing rail routes, Director Eastman of the Office of Defense

Transportation has held that public convenience must be considered secondary to rubber conservation. This policy was set forth in a decision wherein the ODT director concluded that the Kansas City Public Service Company must restore street-car service on a route where bus service was inaugurated January 1 for a trial period ending April 15 and later extended to May 15.

"Our policy in such an issue as this," Mr. Eastman said, "is determined almost entirely by the stoppage of rubber imports and the desperate need for conserving all the rubber now in our possession. . . . The continued scarcity of rubber compels the application of this policy to the South Paseo-Marlborough situation in Kansas City, and the national interest thus involved more than offsets the inconvenience and discomfort of a portion of the passengers."

C. of C. Discusses Transportation

Transportation problems of the present emergency were discussed at a group luncheon meeting at the thirtieth annual meeting of the Chamber of Commerce of the United States at Chicago on April 29. Problems and prospects were presented by Joseph B. Eastman, director of the Office of Defense Transportation, and the subject was further considered by a panel consisting of T. C. Burwell, vice-president of the A. E. Staley Manufacturing Company, Decatur, Ill.; Alex W. Dann, president of the Union Barge Line Corporation, Pittsburgh, Pa.; Powell C. Groner, president of the Kansas City Public Service Company, Kansas City, Mo.; H. C. Horton, president of the Horton Motor Lines, Charlotte, N. C.; W. C. Kendall, chairman of the Car Service Division of the Association of American Railroads, Washington, D. C.; Frank M. Kreml, director of the Safety Division of the International Association of Chiefs of Police, Evanston, Ill.; Edward V. Rick-enbacker, president of Eastern Airlines, Inc., New York, N. Y.; and A. W. Vogtle, president of the National Association of Shippers Advisory Boards, Birmingham, Ala.

Price Ceiling Prevents Most Canadian Rate Increases

General "price ceiling" regulations prevent an increase of passenger and freight rates on Canadian domestic traffic, according to a ruling of the Dominion Wartime Prices and Trade Board. The application of the railways for increases to correspond with the changes in passenger, parlor car and sleeping car fares and freight rates authorized in the United States has been approved by the board only as to international business.

The announcement states further that the application before the board "was not based on a desire to secure increased revenues, but on the ground that the relationship between American and Canadian rates on transportation of this kind was well established and should be continued in the interest of all concerned."

As noted in *Railway Age* March 28, page 673, the railways had applied for authority to increase rates on lines entirely within Canada that are competitive with United

States routes and also on lines serving Canadian ports where rates are based on competition with United States ports. The Board of Transport Commissioners gave its approval to this application. Wartime regulations in Canada, however, make the Wartime Prices and Trade Board the superior authority in all matters affecting the established ceilings on prices, and this latter board has refused to approve the application except as it applies to international traffic.

ODT Head Before Truman Committee

(Continued from page 867)

er degree. On the subject of a locomotive inventory, he told the committee that other roads had already loaned locomotives to the Southern Pacific and the Boston & Maine.

In reference to the better use of existing equipment, Mr. Eastman explained that his office was considering an order to control loading by increasing the carload minima. This order would apply only to box cars, he continued, for, at present, open type cars are being loaded to capacity. Referring to his General Order No. 1, dealing with the loading of merchandise freight, the ODT Director declared that this situation has "materially improved" although the order has not gone into effect.

Other means of improving the use of equipment which were suggested by Mr. Eastman were the substitution of trucks for rails on short hauls, the spreading of the year's load by cutting down the car-loading peak in October, and the elimination of cross-hauls.

On the subject of obtaining more new equipment than that already authorized by the War Production Board, Mr. Eastman preferred not to express definite opinions in view of the fact that he was scheduled to have a conference with WPB a few days later on April 28. However, he does feel that the capacity of the locomotive plants should not be decreased and that there will have to be more open top cars than originally contemplated. Moreover, Mr. Eastman is not critical of WPB for its recent allocation of equipment for the coming year, but has "the greatest sympathy" for it in its "difficult" task of trying to get critical materials for all the war needs.

Mr. Eastman is opposed to any priority

system on freight shipments and any rationing of passenger transportation, for he feels that such action would cause panic among shippers and slow down all transportation. If there is any need of control of shipments, he declared, he would rather not have the product produced in the first instance than try to prohibit its shipment after it is made. No passenger rationing or freight priorities are now in contemplation, he told the committee, and he hopes that "we don't have to have any."

It was the ODT Director's belief that the country's transportation system is holding up relatively well, but he predicted that the railroads would have serious difficulty in hauling the extra passengers and freight resulting from the war unless means were found to prevent trucks and busses from being forced off the highways due to the lack of tires. He also urged the most stringent conservation of the country's supply of motor vehicles and tires, which, he characterized as "our most precious stockpile."

The committee learned from Mr. Eastman that northbound transportation on the Mississippi River is now up to capacity and that his organization had asked the WPB for additional barge equipment for the inland waterways. He also noted that some pipelines were being reversed and that some in Texas will be dug up and relocated to relieve the present oil shortage on the east coast.

In response to a query from Senator Burton, Mr. Eastman expressed his belief that during the present emergency railroad managements "must get away from the idea of intense competition" and work more as a unit.

Pioneer Zephyr Nearing Two-Millionth Mile

The Pioneer Zephyr of the Chicago, Burlington & Quincy, which passed its millionth mile on December 29, 1939, is now nearing its two-millionth mile of service, according to a statement issued by the railroad on April 18, the eighth anniversary of the christening of the train. "It is enjoying an illustrious career," the release reads. "During 1934, it traveled 30,437 miles for exhibitions in 222 cities to 2,016,606 visitors. On May 26, 1934, it startled the world with its record-breaking non-stop run from Denver to Chicago—1,015 miles in 785 min., an average of 77.6 miles an hour."

The "Pioneer Zephyr" entered regular



The Pioneer Zephyr Is Currently Running 456 Miles Daily Between Lincoln, Nebr., and McCook

service on November 11, 1934, between Lincoln, Neb., Omaha and Kansas City, Mo., and subsequently has been in service on various other parts of the Burlington system. Burlington officials declare the "Pioneer Zephyr" is still a young train. Its only shortcoming, they assert, is its capacity. It originally consisted of three cars and later was enlarged to four. However, it has met with such popular approval that the railroad repeatedly has found it necessary to replace the "Pioneer" with a larger Zephyr. It inaugurated overnight service between Chicago and Colorado in May, 1936, a job now assigned to the 14-car "Denver Zephyrs."

N. W. L. B. Sets Arbitration Date for T. P. & W. Dispute

Arbitration of the dispute which led to the government seizure and operation of the Toledo, Peoria & Western was set for May 5 at Chicago by the National War Labor Board on April 27. No provision has been made for the representation of the corporation or its owner and president, George P. McNear, Jr.

The action follows a request made by Mr. McNear on April 25 that an emergency board be appointed to investigate and report on "wasteful practices of featherbed rules." In his wire Mr. McNear said:

"The atmosphere is cleared. Brotherhood officials have been found guilty of a dynamiting and an attempt to stop interstate commerce in time of war. Our railroad and officials have been acquitted of charges of violating the Railway Labor Act brought against us by our government at the instance of these brotherhoods. Now that the public is no longer confused by the charges, counter-charges and long trials in the federal court, we renew our requests for a public investigation of the real issues involved. Justice and common decency dictate that the unlawful order of your Board be revoked and that an impartial emergency board be appointed, as intended by the Railway Labor Act, to provide a basis for the settlement of just such disputes. This appropriate step was not taken by the Mediation Board when it should have been. It is still available under the Railway Labor Act.

"The issues in our case go far beyond the small size of our railroad. The grossly wasteful practices of the featherbed rules demanded of us should be given a public airing without further delay. We ask your Board to arrange for the appointment of an emergency board for a full investigation and report."

Mr. McNear on April 29 rejected the request for arbitration, telegraphing William H. David, chairman of the board, that the road "will not participate in the so-called arbitration under Judge Hilliard and will not be bound by any award resulting therefrom." The telegram was in reply to an N. W. L. B. message on the previous day rejecting Mr. McNear's request for the appointment of an Emergency Board.

Mr. McNear objected to Justice Hilliard's appointment on the ground that the Colorado jurist in past cases "has clearly disclosed his partiality to the Brotherhoods and his inability to understand operating

problems." Any award made by Justice Hilliard "will be solely for the account of the Federal Manager and the employees working for him during the period of federal operation," Mr. McNear said.

More Tank Car Records Broken

(Continued from page 865)

3,729,000 barrels as the daily demand for crude oil alone during May.

"The further reduction in the production rates," declared Mr. Ickes, "is but a reflection of the increasing seriousness of the problem of transporting oil from where it is produced to the important consuming centers of the nation, principally along the eastern seaboard. Despite the recent amazing increase of tank car shipments made possible by the splendid efforts of the railroads and the oil companies, it just is not possible, in present circumstances, to satisfy the total crude oil demand forecast by the Bureau of Mines."

Meanwhile, Representative Mansfield, Democrat of Texas and chairman of the House committee on rivers and harbors, has moved to translate his ideas on relieving the east coast oil shortage into legislative action. This week he introduced in the House H. R. 6999, a bill which would authorize the construction and operation of a pipe line and a navigable barge channel across Florida, the construction of an inland route from the western terminus of this channel to the present eastern terminus of the Intracoastal Waterway, and by deepening and enlarging the Intracoastal Waterway from its present eastern terminus to the vicinity of the Mexican border. The bill would authorize \$144,000,000 to carry out this work. Thus, Mr. Mansfield would have a protected route up the Gulf and Atlantic coasts for the use of oil-carrying barges.

Also, this week, the Trans-American Pipeline Corporation wrote a letter to Director Eastman of the Office of Defense Transportation asking that he reconsider its recently-rejected application for authority under the Cole pipe line act to construct a crude oil pipe line from Wichita County, Tex., to Savannah, Ga. The company now proposes to extend its line from Wichita County, Tex., to the Permian Basin in West Texas, at an estimated cost of \$3,150,000.

Derailment Blocks Hudson Tubes

Train service through the Hudson River tubes of the Hudson & Manhattan Railroad which connect Hudson Terminal in downtown New York with New Jersey rail terminals was completely blocked for more than three days following a derailment that occurred about 10:48 p. m. on April 26. Five passengers were killed and some 200 were injured.

The train involved, eastbound from Pennsylvania Station, Newark, N. J., to Hudson Terminal, was made up of six steel rapid transit cars electrically operated by third rail contact. Clear accounts of the accident are not available while official investigations are still in progress, but it appears the train was derailed on a curve

entering the Exchange Place station in Jersey City, where the track is depressed between the tunnel wall and the station platform, which is at the car floor level. From this point the first two cars continued ahead for some distance, while the next three were thrown against the tunnel wall and upon the station platform. The sixth car remained on the track.

All trains into Hudson Terminal move on the track which was blocked and torn up. Average daily traffic in 1941 was close to 61,000 passengers in each direction, and extra ferries and Hudson & Manhattan trains on the unaffected line between Newark and uptown New York were pressed into service to care for them until normal service could be restored.

Removal of the wreckage and replacement of damaged track and structures were tasks of exceptional difficulty because the accident occurred deep underground in a tunnel with limited clearances where heavy equipment or large groups of men could not be employed.

The motorman of the train, it was alleged by the police, had been drinking—and is being held on charges of manslaughter.

New York Passenger Terminals Report '41 Traffic

Percentage-wise the New York, Ontario & Western led the railroads serving New York in increased passenger business into and out of that city in 1941, according to the annual report of the local Transit Commission. Its increase was 33.5 per cent. The Pennsylvania had an increase of 9.4 per cent.

The total volume of passenger business in and out of New York by all railroads dropped 1.9 per cent in 1941 as compared with 1940. This loss was distributed about equally on a percentage basis between commuter travel and regular-fare traffic.

The report discloses that 184,989,536 passengers were moved in and out of New York by rail in 1941. Pennsylvania Station handled 61,188,803 of them. This is an average movement of 167,640 passengers daily. In 1941 both the Pennsylvania and the New Haven made new records in regular fare business through Pennsylvania Station. The Pennsylvania handled 14,270,858 passengers of this class, and the New Haven 1,615,657. The New Haven's through business at this station increased 47 per cent over 1940, its previous record year.

The New Haven's regular fare business through Grand Central Terminal also increased substantially in 1941, when 10,791,721 passengers were handled, as compared with 9,704,689 in 1940, a gain of 1,087,032, or 11.2 per cent. In 1941 there were 4,853,309 passengers of this class on New York Central main line trains using Grand Central, an increase of 613,467, or 14.5 per cent, over 1940. Business at the 125th Street Station is included in the Grand Central Terminal figures.

Of the railroads handling heavy commuter traffic in and out of New York, the Pennsylvania registered the largest increase in business, moving 9,071,200 passengers of this class in 1941, as compared with 8,550,132 in 1940. About 61 per cent of this travel moved through the downtown Hud-

son Terminal. Of all lines serving New York, the Long Island continues to report by far the heaviest commuter traffic, with 40,094,404 such passengers in 1941, an increase over 1940 of about 1 per cent. As the 1940 figures for the Long Island were swollen above normal by inclusion of a substantial volume of World's Fair business, the growth of actual commuter travel on this line is even greater than indicated by this comparison.

Would Investigate Dropping of Pipe Line Suits

Representative Coffee, Democrat of Washington, has introduced in the House H. Resolution 472, calling for a special House committee to investigate the reasons which led Assistant Attorney General Thurman Arnold last December to agree to the entering of consent decrees against some 20 oil companies and 52 common carriers by pipe line. (See *Railway Age* of December 27, 1941, page 1091.)

Mr. Coffee, in a speech made on the floor of the House on April 23, deplored the fact that the Justice Department decided to forego the suits it had instituted on September 30, 1940, which were intended to serve as test cases of the question of whether or not dividends paid to oil companies by the pipe line companies constituted rebates within the meaning of the Elkins Act.

Rather, the Washington legislator charged that the government, by failing to prosecute the suits, passed up an opportunity to recover at least \$1,500,000,000 and possibly \$3,000,000,000 in fines which could have been assessed for violations of the Elkins Act.

As evidence in support of the charge that there was considerable dissension in the Justice Department over the failure to prosecute the suits, Mr. Coffee told his colleagues that "another striking feature of this matter is that the two attorneys of record in the three test suits refused to sign the new bill of complaint or the consent decree and that one of them immediately resigned from the Department of Justice."

Moreover, Mr. Coffee suspects that both Mr. Arnold and Attorney General Biddle may have signed the decree "with reluctance," and the purpose of his resolution is to make them appear under oath before a House committee and tell the reason which brought about the consent decree against the oil companies and pipe lines.

One Sub-Chaser a Week is Goal of New Pullman-Standard Shipyard

Construction of the first all-steel anti-submarine patrol ships ever built in the Chicago region will begin in early summer at a shipyard now being erected by the Pullman-Standard Car Manufacturing Company. By means of streamlined production methods which call for fabrication of large sections of the ships in the company's car works with final assembly on the ways, the yard will ultimately turn out a ship a week, according to Commander W. R. Dowd, supervisor of shipbuilding, U. S. N., for the vicinity of Chicago, and C. A. Liddle, Pullman-Standard president, who made the announcement jointly. The Navy

had advanced \$4,300,000 for the new plant.

The company's present contract with the Navy calls for the construction of 50 Diesel-powered fighting ships. The contract was awarded to Pullman-Standard because of the company's long experience in working heavy steel. While ample facilities to construct the normal 110-ft. wooden patrol ship are to be found on the Lakes and elsewhere, the Navy's real task was to find firms with steelworking experience to turn out the larger, newly-designed all-steel craft. It was pointed out that many of the trades employed in car building are identical to those required in shipbuilding. Car workers who can be adapted readily to shipbuilding include welders, riveters, electricians, pipe and frame fitters, sheet metal workers, joiners, painters, plumbers, and cabinet makers.

Although almost all present employees of the car works will work on the ships, several thousand men will have to be engaged from the outside and thoroughly trained in these and other shipbuilding crafts, it was said, and facilities are already being set up, with the co-operation of public vocational training authorities, to train these

men. In addition to ships, Pullman-Standard is turning out airplane parts, tanks, artillery shells, mortars and gun carriages.

March Truck Volume 11.9 Per Cent Above March, 1941

The volume of freight transported by motor truck in March increased 9.3 per cent over February and 11.9 per cent over March, 1941, according to American Trucking Associations, Inc.

The A. T. A. in this March report featured data "clearly indicating that tank trucks have been pressed into service to help fill the breach in gasoline transportation facilities caused by ship sinkings." The volume of petroleum handled by motor carriers in March, the statement went on, "skyrocketed almost 80 per cent above the same month last year."

Meanwhile, reports on the aggregate volume of all types of freight (including petroleum) were received by A. T. A. from 222 motor carriers in 42 states. The reporting carriers transported a total of 1,622,801 tons in March, as compared with 1,485,043 tons in February, and 1,450,657 tons in March, 1941. The A. T. A. index,

Conditioning the Customers to Crowding

If you can't always get a lower...

It's due to a Pullman car shortage that daily becomes more acute as America's war effort swings into full stride... as more and more cars are required for long distance troop movements.

Increased demands on the supply of Pullman cars allocated to civilian needs has resulted, at times, in a shortage of accommodations... a situation not always appreciated by many of our patrons seeking last minute reservations at peak periods. In peacetime, this condition would undoubtedly be relieved by the addition of necessary cars. But Pullman space these days is truly a war commodity, and frequently there are no extra cars available.

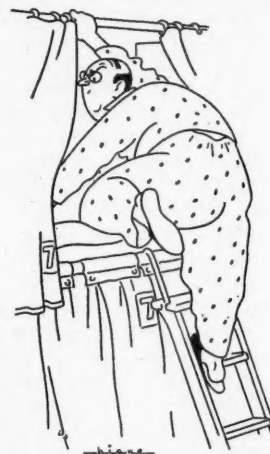
We of the New Haven Railroad are sincerely exerting every effort to supply the type of accommodations to which you have been accustomed. But if you can't always get a lower, we hope you will understand.

May we suggest that you make your reservations and purchase your tickets in advance... and that for the benefit of those who may be on waiting lists, you release accommodations promptly whenever you change your plans?

THE NEW HAVEN R. R.



Typical Advertisements in Series Being Published by the N. H. and the N. Y. C.



Why Mr. Tupper got an Upper!

Obviously Mr. Tupper, being a man who likes to keep his chassis on the ground, didn't take this upper by choice. Frankly it was the only space left when he called for a reservation.

At the present moment, Mr. Tupper is scarcely in the frame of mind to remember that our responsibility to the armed forces—calling for instant and urgent cooperation—may limit accommodations upon occasions.

Moreover we must handle both military and civilian travel with our present equipment, as priorities make it impossible to build new passenger cars at this time.

The accommodation that Mr. Tupper would have preferred might be moving soldiers hundreds of miles away. We think this is as it should be—that first things come first. And Mr. Tupper, a "right guy" at heart, doubtless would agree.

You may have experienced no inconvenience whatsoever in obtaining accommodations up to now. But should any occur, we believe that your understanding of the problem will brighten your acceptance of the solution.

NEW YORK CENTRAL
The Water Level Route...You Can Sleep



Buy United States
War Saving Bonds
and Stamps

based on the average 1938-1940 monthly tonnage, was 166.18 for March, as compared with February's 143.76.

Almost 85 per cent of all tonnage transported in the month was reported by carriers of general freight. The volume in this category increased 9.3 per cent over February, and held 13.8 per cent over March of last year. Transporters of petroleum products, accounting for a little more than nine per cent of the total tonnage reported, showed an increase of 18 per cent over February, and an increase of 78.1 per cent over March, 1941. Movement of new automobiles and trucks constituted only 0.4 per cent of the total tonnage reported. Tonnage in this class decreased 51.5 per cent under February and 83.4 per cent under March of last year. Haulers of iron and steel products reported almost 2½ per cent of the total tonnage. The volume of these commodities showed an increase of one per cent over February, but declined 41.9 per cent under March, 1941. A little more than three per cent of the total tonnage reported was miscellaneous commodities, including tobacco; milk, textile products, bricks, building materials, cement and household goods. Tonnage in this class increased 7.8 per cent over February, but dropped 4.5 per cent under March of last year.

Army Finds Roads Doing "Very Well"

(Continued from page 868)

be delayed or stored until ships of foreign countries have reached American ports. Storage yards, warehouses, and ground storage areas, will be set aside at these holding stations where carloads of supplies may be unloaded if necessary. These arrangements will prevent a shortage of cars as well as too large an accumulation of supplies in the storage facilities at the ports themselves."

General Somervell was asked if there was yet any accumulation of unloaded railroad cars at the ports. He replied that there had been "no general situation" of that kind, adding that "incipient situations" at two ports (New York and Philadelphia) had been promptly cleared up. "So far as army shipments are concerned," he continued, "there never has been a carload that wasn't promptly taken care of. Congestion at the ports is what we all have a horror of. It's what happened in the last war, and we hope we are going to be intelligent enough to avoid it this time."

After announcing the establishment of the Port-Agencies set-up the War Department statement went on to tell how the Army has always worked "in close cooperation with American railroads and shipping companies." As was the case in World War I, the Army is now "meeting the problem of enlarging its staff in the shortest possible time by drawing upon the best skills of top railroad and shipping executives for duty in the Transportation Service." Among the "outstanding men in these fields," who have been brought into the service, the statement listed the following railroads: Lieutenant Colonel A. F. McIntyre, superintendent of passenger trans-

portation, Pennsylvania; Major M. J. Reynolds, assistant to vice-president in charge of operations, Baltimore & Ohio; Gustave Metzman, assistant vice-president, New York Central. Listed also was W. J. Williamson, general traffic manager of Sears, Roebuck & Company, who heads the recently-organized Traffic Control office, as noted in the *Railway Age* of April 4, page 709.

Truckers Get Some Orders from ODT

(Continued from page 866)

of the armed forces. Another exemption provision is that applying to any truck engaged in a movement authorized by special or general permit from ODT.

While undertaking to insure capacity loading, the orders at the same time seek to conserve tires and equipment through the establishment of ceilings on overloading and the elimination of hauling by circuitous routes. In the former connection, the trucks will be allowed to load only to the extent of 120 per cent of the rated tire capacity, as determined by a scale set up by ODT in an appendix to the orders. The capacity of a truck for the purpose of determining its load ceiling is to be based on the rated capacity of its tires, less the weight of the truck itself. A "circuitous route" is defined as any route which exceeds the most direct highway route by 10 per cent.

The order applying to common-carrier trucks provides that no such vehicle shall be allowed to return to the point of origin empty or loaded only to a fraction of capacity unless there are no goods in the possession of any other common carrier awaiting transportation in the direction in which the truck would be traveling on its return trip. The order would not, however, prevent a truck traveling empty "from point of final discharge of lading to a nearby point, where traffic is available for loading, if such traffic cannot be transported by any carrier under any conditions" set forth in the order.

An ODT statement accompanying the orders asserted that the action was necessary, lest the time arrive when the "movement of essential military traffic and food-stuffs may be impeded." It was pointed out that in 1941 there were approximately 700,000 new trucks put into service in the United States, while only about 150,000 new trucks will be available during this year and next. In normal times, approximately 420,000 trucks are retired from service each year.

Under General Order 6, which applies to local delivery services, all special deliveries, "call backs" and more than one daily delivery to any person will be banned after May 15; and after June 1, the local truckers will be required to reduce their total mileage by at least 25 per cent each month as compared with the corresponding month of 1941. In computing such reduction, the mileage saved by cutting down on deliveries and eliminating special deliveries and call backs may not be included.

Exempt from the special-delivery ban will be deliveries to hospitals and the

armed forces of the United States, and emergency deliveries "necessary to protect the public health, life and safety." Vehicles specifically exempted from provisions of the order include those performing pick-up and delivery service for line-haul motor, rail, express, air, or water carriers, or for freight forwarders; vehicles operated exclusively for the construction and maintenance of telegraph, telephone, radio, electric light and power, gas, water supply, sewage disposal, garbage disposal, and sanitation services; vehicles owned or operated by the armed forces of the United States or of any state; and farm vehicles when transporting produce or farm supplies to market or farm. The dividing line between C. and D. and over-the-road is placed at 15 miles, those vehicles working within that radius being considered in the pick-up category and those going farther in the line-haul.

Vaughan Addresses Union Meeting

The twelfth annual union-management "co-operative" meeting of the Canadian National's maintenance of way department was held last week, President R. C. Vaughan of the C. N. R. being the principal speaker.

"If there ever was a time when co-operation was needed between employer and employee it is now," said Mr. Vaughan. "I am grateful for the splendid work you have done under sometimes very trying conditions, especially since the outbreak of war in September, 1939."

"Most of you have seen our annual report for the year ending December 31, 1941. In case you have not received one, a copy is available in this room for each of you. The report was relatively good. In fact, 1941, from the viewpoint of net earnings, was the best we have ever had. Last year we moved the greatest tonnage of freight in our history—exceeding by about 20 per cent the volume handled in the last peak year of 1928. We moved that freight with considerably less expense than in 1928, which is a tribute to the good work done by our men. But for your co-operation, we could not have accomplished those results."

"These heavy earnings are only of a temporary kind and are brought about by the movement of war traffic. Our expenses are increasing very rapidly. The war (wage) bonus on the present scale will cost us about \$20,000,000 in 1942 and in many other ways our costs are advancing."

"The Canadian National is engaged in many forms of war work. We have carried, since the beginning of the war, hundreds of thousands of men of the various fighting services. We have moved war materials in vast quantities to the seaboard for shipment to the various theatres of war. We have provided hundreds of miles of sidings for war industries, airports, etc."

"We are building guns and other implements of war in our own shops. We have completed a number of minesweepers in our shipbuilding plant, and we are now building large cargo boats there. We have about 1,200 men employed in building these vessels and we hope, when housing is available, to employ nearly as many more in this work. Scores of our officers have

been loaned to the government to fill important positions at Ottawa. We are moving nearly a trainload a day of bauxite, used in the manufacture of aluminum.

"This heavy traffic means that our track

in many places is getting a terrific pounding. In fact, nearly all our facilities are being used to near capacity. Our first consideration must of course be safety—that is, safety to our passengers and safety to

our employees. We are having the greatest difficulty obtaining materials for necessary renewals, such as rails and fastenings, b. & b. timbers, ties, etc. Several of our
(News continued on page 880)

The Baltimore and Ohio Railroad Co.

SUMMARY OF ANNUAL REPORT FOR THE YEAR 1941

The annual report of the President and Directors of the operations of the Company for the year 1941 is being mailed to its shareholders. The report shows that the gross earnings for the year were the largest for any year since 1929.

Results of Operations

The audited income account of the Company in comparison with 1940 is summarized as follows:

	1941	1940	1941 Increase Over 1940
Railway Operating Revenues	\$227,503,021.56	\$179,175,464.63	\$48,327,556.93
Railway Operating Expenses	160,918,417.51	132,600,798.97	28,317,618.54
Net Railway Operating Revenue	\$ 66,584,604.05	\$ 46,574,665.66	\$20,009,938.39
Railway Tax Accruals..	15,780,105.71	11,645,694.99	4,134,410.72
Railway Operating Income	\$ 50,804,498.34	\$ 34,928,970.67	\$15,875,527.67
Equipment and joint facility rents — Net Debit	4,507,373.81	4,310,439.38	196,934.43
Net Railway Operating Income	\$ 46,297,124.53	\$ 30,618,531.29	\$15,678,593.24
Other Income	8,306,748.01	8,244,714.20	62,033.81
Total Income	\$ 54,603,872.54	\$ 38,863,245.49	\$15,740,627.05
Miscellaneous Deductions	2,004,180.92	1,688,203.37	315,977.55
Income Available for Interest and Other Charges	\$ 52,599,691.62	\$ 37,175,042.12	\$15,424,649.50
Fixed Interest and Other Fixed Charges	20,141,033.67	20,265,210.33	124,176.66
Income Available for Other Purposes	\$ 32,458,657.95	\$ 16,909,831.79	\$15,548,826.16
Contingent Interest Charges	11,366,775.00	11,360,335.00	6,440.00
Net Audited Income...	\$ 21,091,882.95	\$ 5,549,496.79	\$15,542,386.16

In this statement there are included as deductions before arriving at net audited income, the full amount of fixed and contingent interest on the total interest bearing indebtedness of the Company accruing within the periods shown.

Available Income and Application Under Modification Plan

The statement shows that for the year 1941 there was \$52,599,691.62 of audited income available for the payment of interest and other charges. Under the Plan for Modification of Interest Charges and Maturities of August 15, 1938, as incorporated in the supplemental indentures of January 1, 1940 to the affected obligations, an adjustment is made in this amount for cash transactions pertaining to the income of former years. This increased the amount of income available for the payment of interest and other charges to \$52,644,114.86. From this is first deducted \$1,057,688.32 for rent for leased roads and equipment and \$19,083,345.35 for interest remaining fixed under the Plan, or a total of \$20,141,033.67, leaving remaining available net income of \$32,503,081.19. From this available net income the Board of Directors in the exercise of their delegated discretion appropriated \$5,690,337.39 for capital fund to be applied to or to reimburse the Company's treasury for capital expenditures. They further appropriated \$22,073,407.69 providing for the payment of all accumulated and unpaid contingent interest accrued to December 31, 1941. From the then remaining available net income, 75%, or \$3,554,502.08, was appropriated for sinking fund, leaving available balance of \$1,184,834.03 for other corporate purposes. (The Plan provides that from 1939 to 1943, 75%, and thereafter 50%, of the Available Net Income remaining after the payment of all contingent interest charges, is to be set aside in the Sinking Fund until \$100,000,000 par value of secured obligations of the Company is retired.)

The payment of contingent interest authorized by the Board of Directors will be made against the surrender of contingent interest coupons of May 1, 1942, appurtenant to all bond issues affected by the Plan, and the supplemental indentures relating thereto and to facilitate collection the coupons of May 1, 1942, may be presented for payment on or after April 10, 1942.

* * * * *

There was a net increase of \$3,788,010.17 in outstanding interest bearing obligations incurred during the year, due principally to the issue of equipment trust obligations.

* * * * *

The total expenditures during the year for additions and betterments to road property aggregated \$3,773,277.77.

During the year four new and additional Diesel passenger locomotives were acquired and placed in service, and to provide adequately for the transportation of material so vital to National Defense, 4,763 new and additional freight cars were acquired, consisting of 1,563 steel box cars, 2,050 steel gondolas and 1,150 steel hopper cars.

The Company also acquired and placed in service four passenger-train cars, eight barges and scows, twenty-five units of automotive equipment and four units of work equipment. The Company built in its own shops fifty new caboose cars and rebuilt and modernized five locomotives, two passenger-train cars, thirty-six freight-train cars, one unit of floating equipment and one unit of work equipment. The total cost of the equipment acquired, together with additions and betterments to existing equipment, aggregated \$17,080,698.55. During the same period there were retired for obsolescence and other causes, eleven steam locomotives, three passenger-train cars, 205 freight-train cars, and thirty-six units of miscellaneous equipment, having a total book value of \$1,065,351.44 which deducted from the total cost of equipment installed during the year makes a net increase in capital account of equipment of \$16,015,347.11.

In addition to the cars delivered and placed in service during the year, 687 additional cars were under contract and have since been delivered. The Company has authorized the acquisition of the following new and additional equipment for 1942 delivery, viz.: two multiple-unit Diesel passenger locomotives, six multiple-unit Diesel freight locomotives, 1,000 steel box cars and 1,000 steel hopper cars at an aggregate cost of approximately \$9,500,000.

* * * * *

Based on 1941 volume of traffic, it is estimated that on an annual basis the increases in rates, fares and charges authorized by the Interstate Commerce Commission, will produce \$10,500,000 additional revenues, as compared with the increase recommended by the Mediation Board appointed by the President of the United States, of \$14,250,000 in wages and taxes incidental thereto, and nothing for increases in cost of materials and supplies and other taxes.

* * * * *

Railway tax accruals in 1941 aggregated \$15,780,105.71, to which should be added miscellaneous tax accruals of \$433,577.45, making total taxes for the year \$16,213,683.16, an increase over 1940 of \$4,432,316.98, or 37.62%. Of railway tax accruals, \$6,471,098 was levied by States and local taxing agencies, and the remainder, or \$9,309,008, was taxes due the United States, of which \$6,194,708 were pay-roll taxes for unemployment insurance and retirement, and \$2,808,192 income taxes, the remainder being of miscellaneous character. Railway tax accruals in 1941 absorbed approximately seven cents of each dollar of total operating revenues and approximately twenty-four cents of every dollar of net operating revenue against which these taxes are a first charge.

R. B. WHITE, President.

UNION PACIFIC RAILROAD COMPANY

Forty-Fifth Annual Report—Year Ended December 31, 1941

TO THE STOCKHOLDERS OF UNION PACIFIC RAILROAD COMPANY:

The Board of Directors submits the following report for the year ended December 31, 1941, of the operations and affairs of the Union Pacific Railroad Company, including lines leased from Oregon Short Line Railroad Company, Oregon-Washington Railroad & Navigation Company, Los Angeles & Salt Lake Railroad Company and The St. Joseph and Grand Island Railway Company. The lessor companies have certain income and charges, and the figures in the Income Account, other than those relating to transportation operations, and in the Profit and Loss Account

and General Balance Sheet and tabulations and tables relating thereto are stated on a consolidated basis, *excluding offsetting accounts between the companies except as otherwise noted.*

Income

The operated mileage at close of year and income for the year 1941, compared with 1940, were as follows:

	1941	1940	Increase	Decrease
Operated Mileage at Close of Year				
Miles of road	9,870.77	9,892.15	.....	21.38
Miles of additional main track	1,537.92	1,537.92		
Miles of yard tracks and sidings	4,310.03	4,300.84	9.19	
Total Mileage Operated	15,718.72	15,730.91	.....	12.19
Transportation Operations				
Operating revenues	\$218,091,994.24	\$168,164,257.99	\$49,927,736.25	
Operating expenses	159,997,894.58	120,949,111.46	39,048,783.12	
Revenues over expenses	\$58,094,099.66	\$47,215,146.53	\$10,878,953.13	
*Taxes	17,784,641.71	14,693,388.53	3,091,253.18	
Railway Operating Income	\$40,309,457.95	\$32,521,758.00	\$7,787,699.95	
Rents from use of joint tracks, yards, and terminal facilities	1,559,762.67	1,706,507.08	.....	\$146,744.41
	\$41,869,220.62	\$34,228,265.08	\$7,640,955.54	
Hire of equipment—debit balance	\$9,048,383.48	\$8,770,354.87	\$278,028.61	
Rents for use of joint tracks, yards, and terminal facilities	2,285,463.65	2,098,950.14	186,513.51	
	\$11,333,847.13	\$10,869,305.01	\$464,542.12	
Net Income from Transportation Operations	\$30,535,373.49	\$23,358,960.07	\$7,176,413.42	
Income from Investments and Sources other than Transportation Operations				
Income from oil operations in Southern California—net	\$4,542,499.41	\$3,375,188.42	\$1,167,310.99	
Dividends on stocks owned	4,547,965.00	4,794,185.00	.....	\$246,220.00
Interest on bonds, notes, and equipment trust certificates owned	2,179,417.28	2,809,941.08	.....	630,523.80
Income from unfunded securities and accounts	184,450.15	†130,429.90	54,020.25	
Rents from lease of road and equipment	232,838.28	186,039.73	46,798.55	
Miscellaneous rents	348,753.36	335,249.32	13,504.04	
Miscellaneous income	751,178.23	396,226.55	354,951.68	
Total	\$12,787,101.71	†12,027,260.00	\$759,841.71	
Total Income	\$43,322,475.20	†\$35,386,220.07	\$7,936,255.13	
Fixed and Other Charges				
Interest on funded debt	\$13,619,757.81	\$14,667,353.97	.....	\$1,047,596.16
Interest on unfunded debt	313,833.21	†221,559.37	\$92,273.84	
Miscellaneous rents	13,467.34	52,634.33	.....	39,166.99
Miscellaneous charges	517,997.33	998,792.31	.....	480,794.98
Total	\$14,465,055.69	†\$15,940,339.98	.....	\$1,475,284.29
Net Income from All Sources	\$28,857,419.51	\$19,445,880.09	\$9,411,539.42	
DISPOSITION OF NET INCOME.				
Dividends on Stock of Union Pacific Railroad Co.:				
Preferred stock:				
2 per cent paid April 1, 1941	\$1,990,862.00			
2 per cent paid October 1, 1941	1,990,862.00	\$3,981,724.00	\$3,981,724.00	
Common stock:				
1½ per cent paid April 1, 1941	\$3,334,365.00			
1½ per cent paid July 1, 1941	3,334,365.00			
1½ per cent paid October 1, 1941	3,334,365.00			
1½ per cent payable January 2, 1942	3,334,365.00	13,337,460.00	13,337,460.00	
Total Dividends	\$17,319,184.00	\$17,319,184.00	.....
Surplus, Transferred to Profit and Loss	\$11,538,235.51	\$2,126,696.09	\$9,411,539.42	

* No liability for excess-profits tax is indicated for either year.

† Restated; last year income from unfunded securities and accounts and interest on unfunded debt were reported on a net basis as "Interest on loans and open accounts—balance."

Expenditures Chargeable to Investment in Road and Equipment Property

Extensions and Branches	\$2,835.92	Credits to investment in Road and Equipment Property:	
Additions and Betterments (excluding equipment)	5,879,148.81	Cost of property retired and not replaced	\$2,116,084.90
Equipment	18,912,799.45	Cost of equipment retired	1,021,509.48
		Total Credits	\$3,137,594.38
Total Expenditures	\$24,794,784.18	Net increase in investment in "Road and Equipment Property"	\$21,657,189.80

[Advertisement]

Operating Results for Year 1941 Compared with Year 1940

	1941	1940	Increase	Decrease	Per Cent
Average miles of road operated	9,878.40	9,901.03	.....	22.63	.2
OPERATING REVENUES					
1. Freight	\$180,272,441.59	\$136,464,742.10	\$43,807,699.49	.....	32.1
2. Passenger	21,554,470.79	17,472,731.34	4,081,739.45	.....	23.4
3. Mail	6,242,147.18	5,610,065.14	632,082.04	.....	11.3
4. Express	2,516,164.16	2,108,051.34	408,112.82	.....	19.4
5. Other passenger-train	2,772,333.45	2,434,548.23	337,785.22	.....	13.9
6. Switching	2,076,420.96	1,815,185.18	261,235.78	.....	14.4
7. Other	2,658,016.11	2,258,934.66	399,081.45	.....	17.7
8. Total operating revenues	\$218,091,994.24	\$168,164,257.99	\$49,927,736.25	.....	29.7
OPERATING EXPENSES					
9. Maintenance of way and structures	\$26,981,583.33	\$17,671,260.28	\$9,310,323.05	.....	52.7
10. Maintenance of equipment	45,803,175.36	32,718,370.99	13,084,804.37	.....	40.0
11. Total maintenance	\$72,784,758.69	\$50,389,631.27	\$22,395,127.42	.....	44.4
12. Traffic	5,246,944.91	4,829,000.57	417,944.34	.....	8.7
13. Transportation—rail line	71,621,704.87	56,868,021.44	14,753,683.43	.....	25.9
14. Miscellaneous operations	4,459,483.23	3,483,992.72	975,490.51	.....	28.0
15. General	5,885,002.88	5,378,465.46	506,537.42	.....	9.4
16. Total operating expenses	\$159,997,894.58	\$120,949,111.46	\$39,048,783.12	.....	32.3
17. Revenues over expenses	\$58,094,099.66	\$47,215,146.53	\$10,878,953.13	.....	23.0
TAXES					
18. State and county	\$9,571,952.45	\$9,530,860.00	\$41,092.45	.....	.4
19. Federal unemployment insurance	2,882,970.13	2,166,191.03	716,779.10	.....	33.1
20. Federal retirement	2,883,538.57	2,172,152.56	711,386.01	.....	32.8
21. Federal income	2,039,241.51	513,201.86	1,526,039.65	.....	297.4
22. Federal capital stock	378,891.50	298,618.90	80,272.60	.....	26.9
23. Other federal	28,047.55	12,364.18	15,683.37	.....	126.8
24. Total taxes	\$17,784,641.71	\$14,693,388.53	\$3,091,253.18	.....	21.0

General Balance Sheet—Assets

	December 31, 1941	December 31, 1940	Increase	Decrease
Investments:				
ROAD AND EQUIPMENT	\$999,797,915.85	\$978,140,726.05	\$21,657,189.80	
Less:				
Receipts from improvement and equipment fund	\$23,823,091.13	\$23,823,091.13		
Appropriations from income and surplus prior to July 1, 1907, credited to this account	13,310,236.52	13,310,236.52		
Total	\$37,133,327.65	\$37,133,327.65		
701. Road and equipment property	\$962,664,588.20	\$941,007,398.40	\$21,657,189.80	
704. DEPOSITS IN LIEU OF MORTGAGED PROPERTY SOLD	\$14,354,350.47	\$36,300.00	\$14,318,050.47	
705. MISCELLANEOUS PHYSICAL PROPERTY	24,743,053.22	12,923,343.19	11,819,710.03	
Total	\$39,097,403.69	\$12,959,643.19	\$26,137,760.50	
706. Investments in affiliated companies:				
Stocks	\$19,424,941.91	\$20,367,948.91		\$943,007.00
Bonds, notes, and equipment trust certificates	6,367,178.12	7,630,078.84		1,262,900.72
Advances	10,970,351.70	19,834,361.04		8,864,009.34
Total	\$36,762,471.73	\$47,832,388.79		\$11,069,917.06
707. Investments in other companies:				
Stocks	\$63,380,981.35	\$75,589,580.01		\$12,208,598.66
Bonds, notes, and equipment trust certificates	42,701,494.47	48,429,987.41		5,728,492.94
Total	\$106,082,475.82	\$124,019,567.42		\$17,937,091.60
703. SINKING FUNDS	\$875.00	\$700.00	\$175.00	
Total Investments	\$1,144,607,814.44	\$1,125,819,697.80	\$18,788,116.64	
Current Assets:				
708. CASH	\$36,854,166.07	\$40,461,012.17		\$3,606,846.10
709. TEMPORARY CASH INVESTMENTS	6,000,000.00		\$6,000,000.00	
711. SPECIAL DEPOSITS	897,381.68	2,257,439.91		1,360,058.23
712. LOANS AND BILLS RECEIVABLE	62,399.45	12,992.25	49,407.20	
713. TRAFFIC AND CAR-SERVICE BALANCES—NET	4,668,622.64	*3,777,798.50	890,824.14	
714. NET BALANCE RECEIVABLE FROM AGENTS AND CONDUCTORS	3,619,318.37	1,355,787.60	2,263,530.77	
715. MISCELLANEOUS ACCOUNTS RECEIVABLE	7,771,494.19	4,168,353.64	3,603,140.55	
716. MATERIAL AND SUPPLIES	33,648,741.62	24,076,646.12	9,572,095.50	
717. INTEREST AND DIVIDENDS RECEIVABLE	916,886.06	703,593.51	213,292.55	
718. RENTS RECEIVABLE	152,159.29	153,877.29		1,718.00
719. OTHER CURRENT ASSETS:				
Baltimore and Ohio Railroad Co. capital stock applicable to payment of extra dividend of 1914	111,531.10	111,715.10		184.00
Miscellaneous items	111.37	482.26		370.89
Total Current Assets	\$94,702,811.84	*\$77,079,698.35	\$17,623,113.49	
Deferred Assets:				
720. WORKING FUND ADVANCES	\$121,090.49	\$185,656.05		\$64,565.56
722. OTHER DEFERRED ASSETS	5,811,931.35	6,433,382.73		621,451.38
Total Deferred Assets	\$5,933,021.84	\$6,619,038.78		\$686,016.94
Unadjusted Debits:				
723. RENTS AND INSURANCE PREMIUMS PAID IN ADVANCE	\$57,642.92	\$10,223.56	\$47,419.36	
725. DISCOUNT ON FUNDED DEBT	604,828.40	636,522.44		\$31,694.04
727. OTHER UNADJUSTED DEBITS	4,760,149.68	2,185,900.79	2,574,248.89	
Total Unadjusted Debits	\$5,422,621.00	\$2,832,646.79	\$2,589,974.21	
Grand Total	\$1,250,666,269.12	*\$1,212,351,081.72	\$38,315,187.40	

* Restated.

[Advertisement]

Operating Results for Year 1941 Compared with Year 1940—Continued

25. Railway operating income	\$40,309,457.95	\$32,521,758.00	\$7,787,699.95	23.9
26. Equipment rents (debit)	9,048,383.48	8,770,354.87	278,028.61	3.2
27. Joint facility rents (debit)	725,700.98	392,443.06	333,257.92	84.9
28. Net railway operating income	\$30,535,373.49	\$23,358,960.07	\$7,176,413.42	30.7
Per cent—Operating expenses of operating revenues	73.36	71.92	1.44	2.0
FREIGHT TRAFFIC (Commercial Freight only)				
Tons of revenue freight carried	33,824,223	27,289,316	6,534,907	23.9
Ton-miles, revenue freight	18,738,920,553	14,060,393,343	4,678,527,210	33.3
Average distance hauled per ton (miles)	554.01	515.23	38.78	7.5
Average revenue per ton-mile (cents) .....	.962	.971	.009	.9
Average revenue per freight-train mile	\$5.89	\$5.73	\$16	2.8
PASSENGER TRAFFIC (Excludes Motor Train, other than Streamlined Train)				
Revenue passengers carried	2,109,885	1,702,678	407,207	23.9
Revenue passengers carried one mile	1,283,992,931	1,021,396,602	262,596,329	25.7
Average distance hauled per passenger (miles)	608.56	599.88	8.68	1.4
Average passengers per passenger-train mile	87.52	76.64	10.88	14.2
Average revenue per passenger-mile (cents)	1.670	1.700	.030	1.8
Average revenue per passenger-train mile, passengers only	\$1.46	\$1.30	\$16	12.3
Average total revenue per passenger-train mile	\$2.01	\$1.88	\$13	6.9

† No liability for excess-profits tax is indicated for either year.

General Balance Sheet—Liabilities

	December 31, 1941	December 31, 1940	Increase	Decrease
751. Capital Stock				
Common stock	\$222,302,500.00	\$222,302,500.00		
Preferred stock	99,591,580.79	99,593,480.79		*\$1,900.00
Total Capital Stock	\$321,894,080.79	\$321,895,980.79		\$1,900.00
755. Funded Debt				
.....	371,643,180.00	346,750,775.00	\$24,892,405.00	
Total	\$693,537,260.79	\$668,646,755.79	\$24,890,505.00	
754. Grants in Aid of Construction	\$9,243,217.26	\$8,726,446.06	\$516,771.20	
757. Nonnegotiable Debt to Affiliated Companies	\$7,854,478.28	\$8,775,873.48		\$921,395.20
Current Liabilities:				
760. AUDITED ACCOUNTS AND WAGES PAYABLE	\$14,700,899.62	\$9,427,982.27	\$5,272,917.35	
761. MISCELLANEOUS ACCOUNTS PAYABLE	785,193.73	*412,142.11	373,051.62	
762. INTEREST MATURED UNPAID:				
Coupons matured, but not presented	569,373.01	281,125.51	288,247.50	
Coupons and interest on registered bonds, due first proximo	4,088,396.10	4,003,652.50	84,743.60	
763. DIVIDENDS MATURED UNPAID:				
Dividends due but uncalled for	187,360.18	149,292.38	38,067.80	
Extra dividend on common stock declared January 8, 1914, payable to stockholders of record March 2, 1914, unpaid	120,362.07	120,982.70		\$620.63
Dividend on common stock payable second proximo	3,334,365.00	3,334,365.00		
764. UNMATURED INTEREST ACCRUED	693,055.00	644,930.83	48,124.17	
766. UNMATURED RENTS ACCRUED	276,388.88	276,391.95		3.07
767. ACCRUED TAX LIABILITY	9,472,679.45	*7,129,354.83	2,343,324.62	
768. OTHER CURRENT LIABILITIES	953,656.56	*2,361,409.63		1,407,753.07
Total Current Liabilities	\$35,181,729.60	*\$28,141,629.71	\$7,040,099.89	
Deferred Liabilities:				
770. OTHER DEFERRED LIABILITIES	\$11,327,557.32	\$10,138,542.77	\$1,189,014.55	
Unadjusted Credits:				
772. PREMIUM ON FUNDED DEBT	\$88,411.73	\$91,626.70		\$3,214.97
773. INSURANCE RESERVE (Reserve for fire insurance)	10,670,484.20	9,931,352.08	\$739,132.12	
RESERVE FOR DEPRECIATION	133,894,736.27	123,773,963.31	10,120,772.96	
778. OTHER UNADJUSTED CREDITS:				
Contingent interest	1,900,496.74	4,118,991.21		2,218,494.47
Miscellaneous items	4,467,279.59	900,407.76	3,566,871.83	
Total Unadjusted Credits	\$151,021,408.53	\$138,816,341.06	\$12,205,067.47	
Total Liabilities	\$908,165,651.78	*\$863,245,588.87	\$44,920,062.91	
Surplus:				
APPROPRIATED FOR ADDITIONS AND BETTERMENTS	\$30,840,876.23	\$30,812,247.46	\$28,628.77	
RESERVED FOR DEPRECIATION OF SECURITIES	34,972,570.88	34,972,570.88		
FUNDED DEBT RETIRED THROUGH INCOME AND SURPLUS	1,674,858.66	1,447,538.66	227,320.00	
SINKING FUND RESERVES	875.00	700.00	175.00	
Total Appropriated Surplus	\$67,489,180.77	\$67,233,057.00	\$256,123.77	
784. Profit and Loss—Credit Balance	235,441,266.83	242,302,936.11		\$6,861,669.28
Total Surplus	\$302,930,447.60	\$309,535,993.11		\$6,605,545.51
As this consolidated balance sheet excludes all intercompany items, securities of the Los Angeles & Salt Lake Railroad Company and The St. Joseph and Grand Island Railway Company owned by other System companies are not included. The difference between the par and face value of such securities as carried on the books of the issuing companies (less unextinguished discount on the bonds and discount charged to Profit and Loss but added back in consolidating the accounts) and the amounts at which the securities are carried on the books of the owning companies is set up here to balance	\$39,570,169.74	\$39,569,499.74	\$670.00	
Grand Total	\$1,250,666,269.12	*\$1,212,351,081.72	\$38,315,187.40	

* Represents 14 shares of First Preferred Stock and 5 shares of Second Preferred Stock of The St. J. & G. I. Ry. Co. purchased by Union Pacific Railroad Company.

† Restated to conform with change in Interstate Commerce Commission classification under which traffic and car service balances receivable and payable, formerly stated separately under "Current Assets" and "Current Liabilities," respectively, are now stated on a net basis; accrued tax liability, formerly classified as a "Deferred Liability," is now classified as a "Current Liability," and liability for taxes collected from employees and others, formerly included in "Miscellaneous Accounts Payable" and "Other Current Liabilities," is now included in "Accrued Tax Liability."

[Advertisement]

News

(Continued from page 876)

officers are spending much time in Ottawa and Washington in an effort to obtain priorities on material needed by us. It appears now that in place of obtaining delivery of material for our various programs in the first half of the year, it may be well into the fall months before all of this material will be received, in spite of the fact that the material was ordered early in 1941 for 1942 delivery. This, of course, delays our work greatly and adds to our expense.

"It also means that our men will have to exercise extraordinary vigilance in the inspection of track, bridges, etc., to insure every mile of track being in safe condition for operation."

New "Panama Limited" Starts Service May 3

The new Panama Limited which the Illinois Central will place in service between Chicago and New Orleans, La., on May 3 will release 19 passenger-train cars and five steam locomotives for military movements. The two sets of equipment each will include sleeping, lounge, observation, dining and dormitory-baggage cars and a Diesel-electric locomotive.

The train is equipped with a complete automatic dial telephone system connecting all the sleeping cars with the dining, lounge and observation cars. There are individual radio receiving sets in the observation, lounge and dining cars. A public address system permits announcements in public spaces throughout the train. Train-speed indicators are located in observation and lounge cars for the information of passengers. All cars are air-conditioned.

The kitchens in the dining cars are especially designed to permit ease in cleaning. The range is heated by fuel oil and there are various labor-saving devices. The Pullman cars provide buffets, bedrooms, drawing rooms, compartments, roomettes and open-section accommodations. New Orleans, Mexico, and Latin America have all contributed decorative themes for this equipment.

The schedules of the new Panama Limited provide for a running time of 18 hr. between Chicago and New Orleans, both northbound and southbound, as compared with 20 hr. under the old schedules. Under the old schedules, the train left both Chicago and New Orleans at 1:00 p. m., arriving at the other terminus at 9:00 a. m. the following morning. The new schedules are as follows:

Southbound
Leave Chicago at 3:15 p. m.
Arrive at Memphis, Tenn., at 1:07 a. m.
Arrive at New Orleans at 9:15 a. m.
Northbound
Leave New Orleans at 2:00 p. m.
Arrive at Memphis, Tenn., at 9:30 p. m.
Arrive at Chicago at 8:00 a. m.

In accordance with these main line schedules, the Panama Limited connection at Carbondale, Ill., to and from St. Louis, Mo., has been changed, the new connecting train leaving St. Louis at 6:05 p. m., instead of 4:35 p. m., and northbound, arriving in St. Louis at 7:20 a. m., as formerly.

All of the new car equipment, with the exception of the dormitory-baggage cars,

was built in the shops of the Pullman-Standard Car Manufacturing Company. The dormitory-baggage cars were rebuilt by the railroad in its own shops. The two new 2-unit Diesel-electric locomotives, each of 4,000-hp. capacity, were built by the Electro-Motive Division of the General Motors Corporation.

End of April Brings Minor Schedule Changes This Year

Few major changes in passenger train schedules marked the end of April this year, as contrasted with previous years when important revisions coincided with the shift to Daylight Saving time, effective in many communities on the last Sunday in the month. Several eastern railroads, including the Lehigh Valley, the Pennsylvania, and the Baltimore & Ohio, have made minor changes in the running time of some main line trains, or shifted departure and arrival times slightly, and other lines have similar adjustments in view.

On the Pennsylvania the westbound "General," between New York and Chicago on the same 16-hour schedule, is now an all-Pullman train. Incorporating much of the equipment that formerly made up a second section of the General, including coaches, is a new westbound train, the "Admiral," which leaves New York at 4:05 p. m. and arrives at Chicago at 8:20 a. m. The eastbound Admiral and General are not affected by this change.

The Seaboard Air Line inaugurated its summer service between New York and the South on April 26. The "Silver Meteor" continues on a 25-hour schedule between New York and Miami, but leaves New York at 2:05 p. m., 15 minutes later than before. The northbound time is unchanged. The southbound "Sun Queen" leaves New York at 10:30 a. m., one hour earlier than before. The schedules of this train northbound have been shortened slightly. It continues to arrive in New York at 4:45 p. m., but leaves Tampa at 2:50 p. m. instead of 2:10 p. m. and Miami at 10:00 a. m. instead of 9:45 a. m. New this summer is one-night-out Pullman service between New York and Sarasota and Venice on the Sun Queen in both directions. The "Palmland" continues in the Florida service with minor schedule changes, as do the "Cotton States Special" and "Robert E. Lee" between Washington and Birmingham.

Summer time-tables become effective on the Atlantic Coast Line on May 3. Separate sections of the "Tamiame Champion," carrying Pullmans, coaches, lounge cars and diners, will serve the East Coast and West Coast of Florida. The southbound West Coast section will leave New York at 12:50 p. m., arriving at Tampa at 1:00 p. m. and at St. Petersburg at 4:00 p. m. Northbound this train will leave Tampa at 1:25 p. m., arriving at New York at 1:50 p. m. The East Coast section will leave New York at 3:55 p. m., arriving at Miami at 4:55 p. m., to continue the 25-hour service now in effect between these points. The schedule northbound is unchanged. The "Havana Special" and the "Palmetto Limited" will continue with slight changes in schedule and equipment.

The co-operative coach streamliners be-

tween Chicago and Florida will continue in service through the summer months, it is announced. Northbound these trains will leave Miami at 4:30 p. m., arriving in Chicago at 9:05 p. m. Southbound they will leave Chicago at 8:20 a. m. and reach Miami at 2:55 p. m. The three routes will alternate departure dates as heretofore, so as to give daily streamliner service. Other through trains carrying coaches and Pullman equipment will continue to operate between Florida and Chicago with the minor schedule adjustments usually effected for the summer season.

Slight schedule changes affecting Southern trains between Florida and Middle Western points also are announced for May 3.

Beginning May 3, afternoon passenger service will be provided principal stations on the Florida East Coast by "The Tire-saver." Diesel-powered and equipped with individual seat coaches, tavern lounge and diner, this train will operate between Jacksonville and Miami on a 6½-hour schedule. Departing southbound from Jacksonville at 3:00 p. m., it reaches Miami at 9:30 p. m.; northbound it leaves Miami at 2:15 p. m., arriving at Jacksonville at 8:45 p. m. to connect with night trains for northern points.

Construction

ST. LOUIS-SAN FRANCISCO.—The U. S. Engineer Office, Denison, Tex., has awarded a contract amounting to \$2,264,441 to the Amis Construction Company, Oklahoma City, Okla., and J. Briscoe, Stillwater, Okla., joint contractors for the relocation of the Frisco from Liggett, Okla., to Platter and from Lakeside, Okla., to Mead. This work is occasioned by the construction of the Denison dam on the Red river. Principal quantities involved in this work were reviewed in the *Railway Age* of February 21, page 430, at the time the invitation for bids was reported.

STATEN ISLAND RAPID TRANSIT.—This company has awarded a contract to the Poirier & McLane Corporation of New York for the relocation of its tracks on Staten Island, N. Y., at estimated cost of \$250,000.

U. S. ENGINEERS.—The U. S. Engineer office, Vicksburg, Miss., has awarded a contract to Robinson & Young, Baton Rouge, La., for the construction of trackage at a cantonment in that state.

UNITED STATES WAR DEPARTMENT.—The engineer office, New Orleans, La., district, has awarded a contract for the construction of a railroad, culverts, a water station and incidental work at a cantonment in Mississippi to W. R. Aldrich & Co., Baton Rouge, La.

WESTERN PACIFIC.—A contract amounting to \$30,590 has been awarded Ellis W. Barker, Salt Lake City, Utah, for the removal of an 80-ft. balanced-type turntable and the installation of a 120-ft. continuous-type turntable at Winnemucca, Nev.

Continued on next left-hand page

These

"ALLEGHENY TYPE" LOCOMOTIVES

... are already proving the
advantages of Modern Power



The ability of these ten new "Allegheny Type" 2-6-6-6 super-power steam locomotives to handle heavier loads on reduced running time has amply justified the Chesapeake & Ohio's foresight in ordering MODERN SUPER-POWER STEAM LOCOMOTIVES.

The operating performance of these new-design locomotives has been so successful that the C & O has placed an additional order with Lima for ten more of these locomotives to be exact duplicates of the original ten.

LIMA LOCOMOTIVE WORKS



INCORPORATED, LIMA, OHIO

Supply Trade

D. P. Murphy has been appointed general manager of the Depew, N. Y., plant of the **Symington-Gould Corporation**.

S. M. Clancey, central district sales agent for the **P. & M. Company**, Chicago, has also been appointed representative of the **Peerless Equipment Company**, Chicago.

W. A. Givens, vice-president in charge of manufacturing of the **Allegheny Ludlum Steel Corporation**, Pittsburgh, Pa., has been elected to the newly created position of executive vice-president and has been succeeded by **Frank B. Lounsberry**.

Howard W. Broecker has been appointed assistant district manager in the Chicago district selling Aristoloy alloy and Coppco tool steels for the **Copperweld Steel Company**. Mr. Broecker was previously associated in the Chicago district with the Youngstown Sheet & Tube Co., and with the Interstate Iron & Steel Co.

OBITUARY

C. D. Carey, manager of railway sales of the Gulf Companies, died April 14. He was 56 years of age.

Carl A. W. Brandt, chief engineer of The Superheater Company and a former railroad engineer, died on April 25. Mr. Brandt was born in Stockholm, Sweden, on January 28, 1881, and received a degree in mechanical engineering from the Technical College of Stockholm in 1899. He was assistant engineer and draftsman on the Government Railway of Sweden in 1900-01 and was associated with the Atlas Locomotive Works in Stockholm in 1902. He then came to the United States and in 1902 entered the employ of the Lake Shore & Michigan Southern (now the New York



Carl A. W. Brandt

Central) as a machinist. In 1903 he became a draftsman for the same road at Cleveland, Ohio, and in 1905 was promoted to the position of assistant mechanical engineer at Cleveland. He was appointed mechanical engineer of the Cleveland, Cincinnati, Chicago & St. Louis in 1910. During 1914-15 he was assistant division master

mechanic of the Big Four at Indianapolis Ind. In 1916 Mr. Brandt became chief engineer of The Superheater Company, New York, in which capacity he had charge of the development and design of locomotive superheaters and feedwater heaters, and similar apparatus for stationary power plants. Mr. Brandt was a member of the New York Railroad Club, the Canadian Railway Club, the Western Railway Club, the Railway Fuel and Traveling Engineers' Association, the Master Boiler Makers' Association, and the American Society of Mechanical Engineers. He was the author of "The Design and Proportion of Locomotive Boilers and Superheaters" presented before the Canadian Railway Club in 1928 and "The Locomotive Boiler" presented before the A. S. M. E. in 1939. For the latter, in 1941 he was awarded the A. S. M. E. Melville Medal "for original engineering work."

Equipment and Supplies

FREIGHT CARS

THE PHELPS DODGE CORPORATION is reported to have placed an order for 190 ore cars of 90 tons' capacity with the Western-Austin Company.

WPB Assumes Control Over Used Rail

Assuming control over all used railroad rail and rail joints, the War Production Board on April 23 issued Limitation Order L-88, prohibiting any person from selling, transferring or otherwise disposing of any used rail of relayer grade, re-roll grade or scrap grade without authorization from WPB's Director of Industry Operations. The order also establishes a scale under which railroads or others receiving new replacement rail must set aside (for use as directed by the Director of Industry Operations) a certain amount of used rail, based on percentages of the new rail received.

The percentages are: 15 per cent within 30 days of each such receipt of new re-

placement rail; 15 per cent additional within 60 days thereof; 20 per cent additional within 90 days thereof; and 40 per cent additional within 150 days thereof. In other words, the amount of old rail set aside must equal 90 per cent of the new rail within 150 days after the latter is received.

Tires for Trucks

Heavy trucks produced under existing quotas may now be equipped with tires under Amendment No. 7 to Limitation Order No. L-1-a which has been issued by the War Production Board with an April 25 effective date. The amendment rescinds the prohibition against putting tires and tubes on new heavy trucks except for delivery to dealers.

Eligible trucks are those having a gross vehicle weight of 16,000 lb. or more. It is estimated that approximately 5,000 of these can now be equipped; and the WPB announcement said that arrangements had been made by its Rubber and Rubber Products Branch to make the tires available.

Priorities and Prices

Following are references to orders of interest to railroads issued by the War Production Board and the Office of Price Administration since April 18.

Benzene—Order M-137, issued April 20, halts the use of benzene in motor fuel immediately, with the exception that any producer or distributor may use within the next 30 days one-sixth of the amount used for the three months ended March 31. Benzene is added to motor fuel as an anti-knock ingredient, and is a necessary ingredient of synthetic rubber.

Iron and steel—Order M-21, as amended on April 22, restricts deliveries of iron and steel products to preference ratings of A-10 or higher after May 15. The order previously applied to steel products only and the inclusion of iron means that the 2,700 iron foundries in the country must comply with its provisions. Warehouses may deliver carbon steel on unrated orders when the purchaser specifies that the material is to be used for repair and maintenance, but each warehouse is limited, by quarters, to three per cent of its quota for any product for such deliveries. Persons other than producers may deliver on unrated orders nails and small black or galvanized welded pipe.

Nickel scrap—Order M-6-c requires the segregation of scrap containing more than one-half of one per cent nickel by weight and permits its melting only for authorized uses. Nickel scrap must not only be kept separate from other scrap, but various grades and degrees of content of nickel scrap must be segregated by all persons who handle it. Purchase orders for nickel scrap or secondary nickel must bear a certification that the purchaser is authorized to receive nickel and

that the material will be used only as permitted by the order. Reports are required by the 15th of each month from persons who produce or have on hand scrap containing more than 500 lb. of nickel content per month, and those who have on hand at the end of a month more than 30 days accumulation of scrap if the nickel content is more than 100 lb.

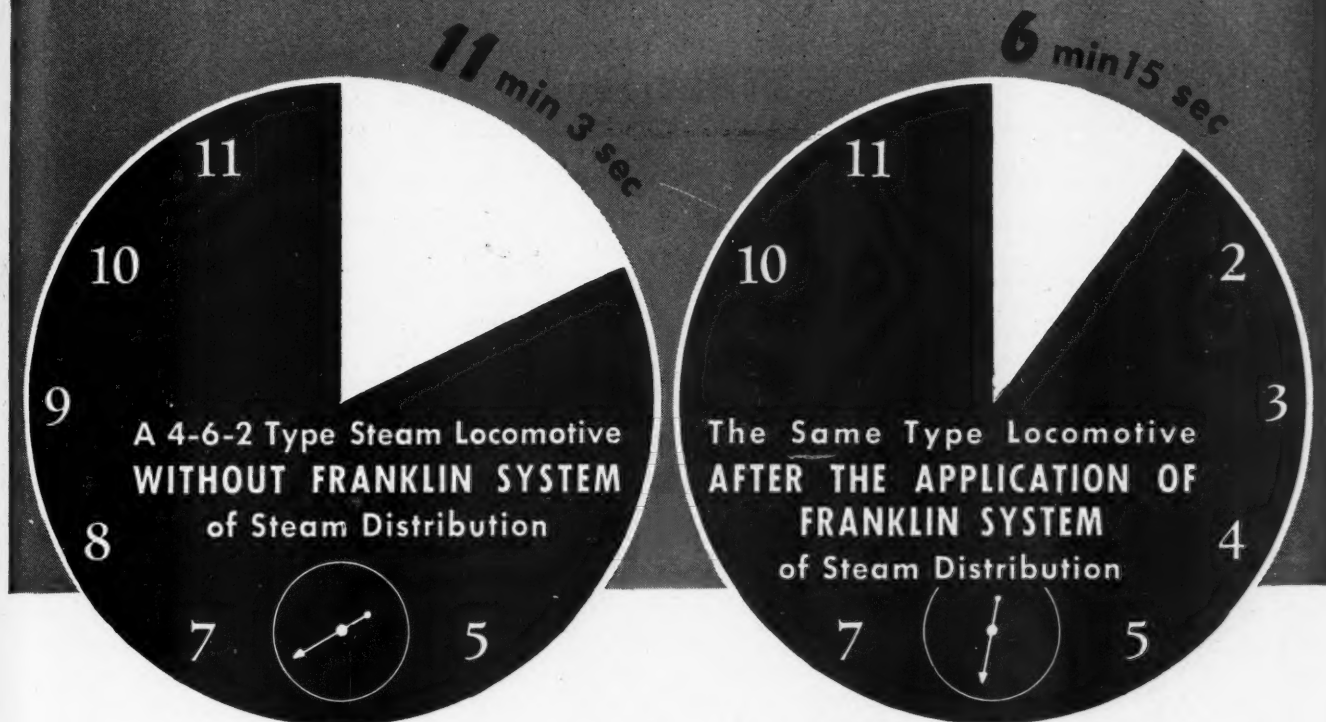
Priority rules—Effective April 23, all applications for priority assistance, which do not specify a required delivery date, will be returned as prescribed by Priorities Regulation No. 1 as amended, requiring every applicant to specify the latest date on which the items can be delivered to meet obligations or production schedules.

Rail, second hand—Limitation Order L-88, effective April 23, prohibits railroads from disposing of any used rail of relayer grade, re-roll grade or scrap grade without authorization from the director of industry operations of WPB. The restriction does not prevent a railroad from using used rail in its own tracks. The order also establishes a scale under which receivers of new replacement rail must set aside a certain amount of used rail, based on percentages of new rail received. The required number of joints for laying the used rail also must be put into the pool. It is expected that the director of industry operations will allocate rail from these stocks from time to time for war needs.

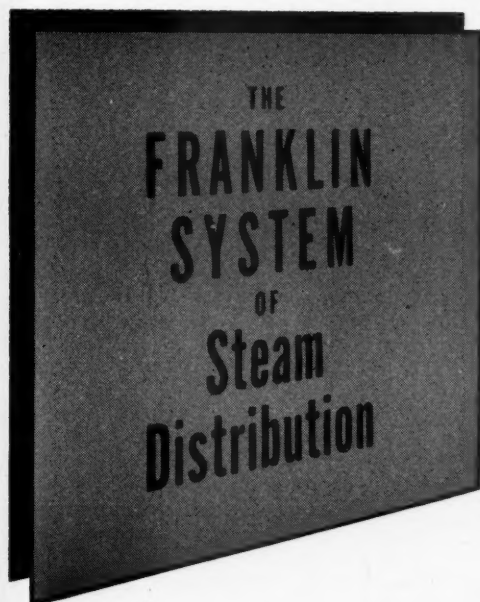
Steel survey—A complete survey of the use of metal in the United States during the first quarter of 1942, and of anticipated requirements for the quarter beginning July 1, was begun on April 20 with the mailing of form PD-275 to all users of metal in raw or semi-fabricated form. The questionnaire is a refinement of the questionnaire sent to 11,000 manufacturers on Janu-

"... the ability of a steam locomotive to accelerate a train rests with its mean effective pressure"

*From the Proceedings of the
Annual Meeting of the A.S.M.E.,
in New York, Dec. 2-6, 1940*



**Time Required To Accelerate a 1,000 Ton Train
From 40 mph To 75 mph on Tangent Level Track**



Extensive road tests and every day service have proved conclusively that The Franklin System of Steam Distribution materially increases mean effective pressure in locomotive cylinders.

This increase in mean effective pressure is obtained by a separation of the valve events so that the admission and cut-off, release and compression are controlled independently, at the same time providing large passage areas for both inlet and exhaust and improved steam flow.

Hence, through the application of The Franklin System of Steam Distribution to your present or new power, you increase train acceleration and provide sustained power at high speeds.



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK
CHICAGO

In Canada: FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL

ary 30. The new survey also covers mines, railroads, ship yards, utilities, construction jobs and the petroleum industry, as well as military and naval contractors. To avoid duplication, only the uses and requirements of metal in raw and semi-fabricated form will be reported.

Storage batteries—Limitation Order L-4-b, issued April 26, prohibits production of storage batteries for passenger automobiles and light trucks after April 30 except in specified minimum ampere hour capacities, and reduces the number of sizes and models now being produced from about 75 to 15. The normal life of batteries will not be affected. Retailers may not deliver new replacement batteries unless the purchaser turns in a used battery at the time of the transaction.

Fluorescent lighting—Order L-78, limiting fluorescent lighting fixtures, was revised April 24 to relax the restrictions on small fixtures. The amendment allows the manufacture without restriction of fixtures with a lamp capacity of 30 watts or less if the materials were ordered on or before April 2 and actually on hand by April 20. The small fixtures may also be manufactured if the materials to be incorporated into them are acquired under an A-2 preference rating or under any rating assigned under the Production Requirements Plan. The amendment bans the manufacture after May 16 of fixtures with a lamp capacity of more than 30 watts, except for orders bearing an A-2 or better preference rating.

Rubber tires—Emergency reserves of tires and tubes for quick replacement of blow-outs will be made available to some long-distance bus and truck operators carrying vital materials, according to Amendment No. 5 to the Revised Tire Rationing Regulations issued by OPA and effective April 22. Emergency certificates and emergency reserve tires together are not to exceed 10 per cent of the total number mounted on running wheels of long-haul eligible trucks.

Typewriters—Rationing of new typewriters, which have been frozen in the hands of independent distributors, wholesalers and dealers since March 6, began April 20, as had been previously announced by OPA. Persons who purchase typewriters for their own use must apply to the rationing board in the district in which the typewriter is to be used. Once eligibility is determined, a purchase certificate is issued which must then be presented to a dealer.

Prices

Crude oil—Amendment No. 7 to Revised Price Schedule No. 88, covering petroleum and petroleum products and issued April 20, increased the price of crude petroleum in the Ritchie oil field to \$1.18 a bbl. for crude of 25 deg. gravity and \$1.20 a bbl. for 26 deg. gravity, in contrast with a flat price of \$1.08 a bbl. on October 1, 1941.

Gasoline—A temporary plan for rationing gasoline in 17 eastern states and the District of Columbia will be instituted May 15 to continue until July 1, when it is planned to institute a more elaborate and comprehensive coupon rationing system. The amount of gasoline that a user may receive under the plan will be announced before May 15. The states are: Connecticut, Delaware, Florida, Georgia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia, West Virginia and the District of Columbia. The temporary plan was adopted to assure fair distribution under the new limitation order which reduces deliveries to gasoline retailers by one-third.

Paint—Temporary Price Regulation No. 19, effective April 22, fixed maximum prices at which manufacturers can sell oil paints and varnishes at levels which prevailed on April 12, 1942. The regulation will remain in force for 60 days pending investigations and covers manufacturers' prices on all paints and varnishes in which linseed oil, or any other drying oil, is a component part.

Coal—Bituminous coal minimum prices were reduced 10 cents a ton for shipments of coal from strip mines in one Ohio subdistrict on April 24, and new minimum prices were established to cover river shipments from strip mines in another Ohio subdistrict, according to the Bituminous Coal Division, the object being to harmonize prices of strip and deep mine coal.

Iron and steel scrap—Revised Price Schedule No. 4, covering iron and steel scrap, effective on April 28, increases by \$4 a gross ton the price of bundles made exclusively of tin-coated material to assure a more adequate supply of exclusively

tin-coated bundles to steel mills and other consumers using this type of scrap.

Rubber tires—Amendment No. 1 to Revised Price Schedule No. 63, effective April 25, permits advances of 16 per cent in the wholesale prices for new tires and tubes of passenger car sizes.

Screen cloth—An amendment to Revised Price Schedule No. 6, issued April 22, permits an increase of about 5 per cent in manufacturers' prices for steel screen cloth over the prices established on April 16. The grades include 12 mesh black painted steel screen cloth and 14 and 16 mesh galvanized steel screen cloth.

Financial

ATCHISON, TOPEKA & SANTA FE.—*New Director Elected.*—Edward L. Ryerson of Chicago, chairman of Joseph T. Ryerson & Son, Inc., and the Inland Steel Company, has been elected a director to succeed Joseph E. Otis, Chicago banker, who retired as a director because of failing health.

ATLANTIC & NORTH CAROLINA.—*Loan.*—This company has asked the Interstate Commerce Commission to approve a loan to it by the State of North Carolina in the amount of \$45,000, the proceeds to be used to purchase four additional locomotives. The note will be retired in five equal annual installments of \$9,000, the first to be payable one year after the date of the note, and one installment each year thereafter.

BALTIMORE & OHIO.—*Trackage Rights.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to operate under trackage rights over a line of the Cherry River Boom & Lumber Company extending generally eastward along the Gauley River from Allingdale, W. Va., to Scotti Junction, 35.2 miles, with short branches up the south fork of Gauley River to Jones Camp, 1.5 miles, and up Straight Creek to Belin, 1.9 miles, a total of 38.6 miles.

BELT RAILWAY OF CHICAGO.—*Annual Report.*—The 1941 annual report of this road shows a net income, after interest and other charges, of \$502,571, compared with a net income of \$250,780 in 1940. Selected items from the income statement follow:

	1941	Increase or Decrease Compared with 1940
RAILWAY OPERATING REVENUES	\$6,603,950	+\$1,094,143
Maintenance of way and structures	458,410	+83,181
Maintenance of equipment	505,366	+109,511
Transportation	2,739,043	+383,411
TOTAL OPERATING EXPENSES	3,873,870	+591,696
Operating ratio	58.66	-.91
NET REVENUE FROM OPERATIONS	2,730,080	+502,448
Railway tax accruals	940,334	+231,637
Railway operating income	1,789,746	+270,811
Net rents—Cr.	258,756	—56,412
NET RAILWAY OPERATING INCOME	2,048,501	+214,399
Other income	67,529	+9,013
TOTAL INCOME	2,116,031	+233,412
Rent for leased roads and equipment	1,612,012	—29,941

TOTAL FIXED CHARGES	1,612,612	—28,309
NET INCOME	502,571	+251,791
Disposition of net income:		
Income balance transferred to profit and loss	\$502,571	+\$251,791

BESSEMER & LAKE ERIE.—*Annual Report.*—The 1941 annual statement of this road shows a net income after interest and other charges of \$6,122,540, compared with a net income of \$6,483,457 in 1940. Selected items from the income account follow:

	1941	Increase or Decrease Compared with 1940
Average Mileage Operated	216.96	—6.87
RAILWAY OPERATING REVENUES	\$20,379,750	+\$2,353,523
Maintenance of way and structures	1,476,445	+214,127
Maintenance of equipment	5,278,693	+1,429,015
Transportation	3,133,504	+443,547
TOTAL OPERATING EXPENSES	10,457,623	+2,080,582
NET REVENUE FROM OPERATIONS	9,922,127	+272,941
Railway tax accruals	4,058,068	+864,815
Railway operating income	5,864,060	—591,875
Net rents—Cr.	1,048,095	+352,635
NET RAILWAY OPERATING INCOME	6,912,154	—239,240
Other income	140,226	—31,786
TOTAL INCOME	7,052,380	—271,026
Rent for leased roads	10	.....
Interest on funded debt	865,221	+79,212
TOTAL FIXED CHARGES	878,688	+81,872
NET INCOME	6,122,540	—360,917
Disposition of net income:		
Dividends	4,422,221	—500,005
Miscellaneous appropriations	.....	—620
Total appropriations of income	4,422,221	—500,625
Income balance transferred to profit and loss	\$1,700,320	+\$139,709

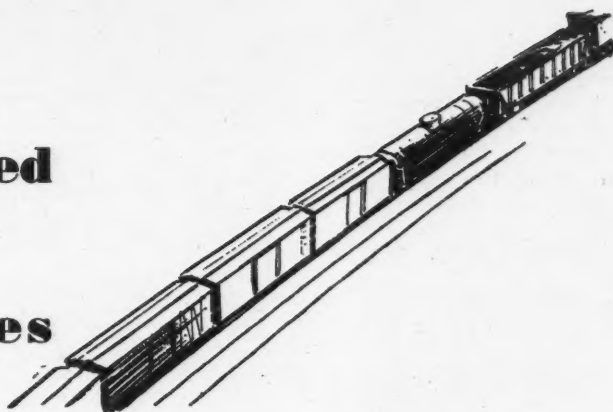
CHATTANOOCHEE VALLEY.—*Deficit Status.*—Division 4 of the Interstate Commerce Commission has found that this company is not entitled to benefit under section 204 of the Transportation Act of 1920, as amended January 7, 1941, and has dismissed its claim for compensation during the period of private operation in the government control period.

CHESAPEAKE & OHIO.—*Note of the Covington & Cincinnati Elevated Railroad & Transfer & Bridge.*—The Covington & Cincinnati Elevated Railroad & Transfer & Bridge has been granted authority by Division 4 of the Interstate Commerce Commission to issue a \$4,325,000 non-interest-bearing 10-year promissory note to be delivered to the Chesapeake & Ohio in payment of advances.

CHESAPEAKE & OHIO.—*Alleghany Corporation Regains Control.*—Robert R. Young, chairman of the Alleghany Corporation, has been elected chairman of the board of directors and of the finance committee of the C. & O. Newly elected directors include Herbert Fitzpatrick, former C. & O. chairman who resigned a year

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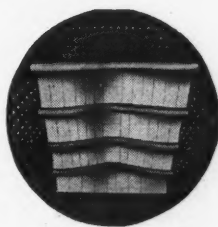
THE HARDER The Locomotive Is Worked THE MORE The Arch Brick Saves



When locomotive runs were short and train speeds slow, the Security Arch showed substantial fuel savings . . . With modern operation, involving long runs at high speeds, the Security Arch shows a greater economy . . . Today the Security Arch costs less per 1,000 ton miles and is a more important fuel saving factor than it was when the service was less severe.



**HARBISON-WALKER
REFRACTORIES CO.**
Refractory Specialists



**AMERICAN ARCH CO.
INCORPORATED**
60 EAST 42nd STREET, NEW YORK, N. Y.
*Locomotive Combustion
Specialists*

ago; Carl E. Newton of New York, Alleghany counsel; James M. Nicely, of the Guaranty Trust Company of New York; William H. Lipscomb of Leesburg, Va.; and Joseph P. Routh of New York. Retiring from the board are Frank B. Bernard of Muncie, Ind.; Homer L. Ferguson of Newport News, Va.; J. L. Dickinson of Charleston, W. Va.; John B. Hollister of Cincinnati, Ohio; and Ralph C. Gifford of Louisville, Ky.

CHICAGO GREAT WESTERN.—Annual Report.—The 1941 annual report of this road shows a net income, after interest and other charges, of \$1,838,105, compared with a net income of \$785,455 in 1940. Selected items from the income account follow:

	1941	Increase or Decrease Compared with 1940
Average Mileage Operated	1,501.70	-.47
RAILWAY OPERATING REVENUES	\$21,506,933	+\$2,758,337
Maintenance of way and structures	2,349,254	-6,801
Maintenance of equipment	2,829,965	+65,247
Transportation	7,472,769	+645,789
TOTAL OPERATING EXPENSES	14,090,526	+807,297
NET REVENUE FROM OPERATIONS	7,416,406	+1,951,040
Railway tax accruals	2,050,686	+689,949
Railway operating income	5,365,720	+1,261,091
Equipment rents—Net Dr.	1,472,773	+18,254
Joint facility rents—Net Dr.	974,269	+98,389
NET RAILWAY OPERATING INCOME	2,918,678	+1,134,447
Other income	111,635	-10,525
TOTAL INCOME	3,030,312	+1,123,922
Rent for leased roads and equipment	112,535	-79,700
Interest on funded debt	721,640	+141,004
TOTAL FIXED CHARGES	846,346	+17,859
NET INCOME	\$1,838,105	+\$1,052,650

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Annual Report.—The 1941 annual report of this road shows a net income, after interest and other charges, of \$5,531,334, compared with a net deficit of \$8,826,522 in 1940. Selected items from the income statement follow:

	1941	Increase or Decrease Compared with 1940
Average Mileage Operated	10,845.86	-28.28
RAILWAY OPERATING REVENUES	\$139,646,122	+\$25,270,533
Maintenance of way and structures	20,043,659	+2,053,909
Maintenance of equipment	22,782,449	+2,222,079
Transportation	47,028,458	+5,735,906
TOTAL OPERATING EXPENSES	97,765,536	+10,595,392
Operating ratio	70.01	-6.20
NET REVENUE FROM OPERATIONS	41,880,586	+14,675,141
Railway tax accruals	9,236,000	+516,000
Equipment rents—Net Dr.	2,129,168	+89,527
Joint facility rents—Net Dr.	2,333,443	-266,617
NET RAILWAY OPERATING INCOME	28,181,975	+4,336,331
Other income	1,159,422	+17,197

INCOME AVAILABLE FOR FIXED CHARGES	28,939,719	+14,072,726
Rent for leased roads and equipment	1,108,970	-845
Interest on funded debt	12,896,947	-301,171
TOTAL FIXED CHARGES	14,264,700	-285,130
NET INCOME BEFORE CONTINGENT CHARGES	14,675,019	+357,856
Contingent Charges: Interest accrued on adjustment mortgage bonds (at 5%)	9,143,685	.....
NET INCOME	\$5,531,334	+\$14,357,856

DULUTH, SOUTH SHORE & ATLANTIC.—Annual Report.—The 1941 annual report of this road shows a net deficit, after interest and other charges, of \$283,710, compared with a net deficit of \$637,485 in 1940. Selected items from the income statement follow:

	1941	Increase or Decrease Compared with 1940
Average Mileage Operated	549.83	-.16
RAILWAY OPERATING REVENUES	\$3,367,250	+\$746,941
Maintenance of way and structures	665,786	+147,338
Maintenance of equipment	512,770	+81,747
Transportation	1,146,338	+137,406
TOTAL OPERATING EXPENSES	2,494,352	+378,915
Operating ratio	74.08	-6.65
NET REVENUE FROM OPERATIONS	872,898	+368,026
Railway tax accruals	195,096	+20,525
Railway operating income	677,802	+347,501
Equipment rents—Net Dr.	31,490	-1,301
Joint facility rents—Net Dr.	18,846	+1,058
NET RAILWAY OPERATING INCOME	627,466	+347,744
Other income	11,028	-4,688
TOTAL INCOME	638,495	+343,056
Interest on funded debt	914,354	-4,131
TOTAL FIXED CHARGES	919,130	-33
NET DEFICIT	\$283,710	-\$353,775

ELGIN, JOLIET & EASTERN.—Annual Report.—The 1941 annual report of this road shows a net income, after interest and other charges, of \$4,877,347, compared with a net income of \$3,590,236 in 1940. Selected items from the income statement follow:

	1941	Increase or Decrease Compared with 1940
Average Mileage Operated	391.61	+1.53
RAILWAY OPERATING REVENUES	\$29,387,656	+\$7,249,566
Maintenance of way	2,325,120	+655,124
Maintenance of equipment	4,936,824	+1,366,498
Transportation	9,842,190	+1,910,439
TOTAL OPERATING EXPENSES*	17,810,025	+4,023,420
Operating ratio	60.60	-01.68
NET REVENUE FROM OPERATIONS	11,577,631	+3,226,146
Railway tax accruals	4,176,029	+1,933,486
Equipment rents—Net	1,787,432	+634,548
Joint facility rents—Net	72,196	+725
NET RAILWAY OPERATING INCOME	5,541,975	+657,387
Non-operating income	158,341	-43,642

TOTAL INCOME	5,700,315	+613,745
Interest on funded debt	611,675	-689,807
TOTAL FIXED CHARGES	798,067	-677,887
NET INCOME TRANSFERRED TO PROFIT AND LOSS	\$4,877,347	+\$1,287,110

* Includes \$1,071,512.17 amortization of Emergency Facilities.

ERIE.—Annual Report.—The 1941 annual report of this road shows a net income after interest and other charges of \$7,930,528, compared with a net income of \$14,263 in 1940. Selected items from the income statement follow:

	1941	Increase or Decrease Compared with 1940
RAILWAY OPERATING REVENUES	\$106,845,421	+\$20,238,808
Maintenance of way and structures	8,748,900	+1,026,399
Maintenance of equipment	18,931,608	+2,877,537
Transportation	38,740,523	+6,153,256
TOTAL OPERATING EXPENSES	72,149,109	+10,487,063
Operating ratio	67.53	-3.67
NET REVENUE FROM OPERATIONS	34,696,312	+9,751,746
Railway tax accruals	9,175,224	+2,190,983
Railway operating income	25,521,088	+7,560,763
Equipment rents—Net Dr.	4,613,718	+502,612
Joint facility rents—Net Cr.	24,213	+19,436
NET RAILWAY OPERATING INCOME	20,931,583	+7,077,587
Other income	1,155,382	+84,161
TOTAL INCOME	22,086,966	+7,161,748
Rent for leased roads and equipment	1,376,099	-78,611
Interest on funded debt	12,053,890	-274,270
TOTAL FIXED AND CONTINGENT CHARGES	13,848,015	-115,557
NET INCOME	7,930,528	+7,916,265
Disposition of net income: Income applied to sinking and other reserve funds	76,796	+76,796
Income balance transferred to profit and loss	\$7,853,732	+\$7,839,468

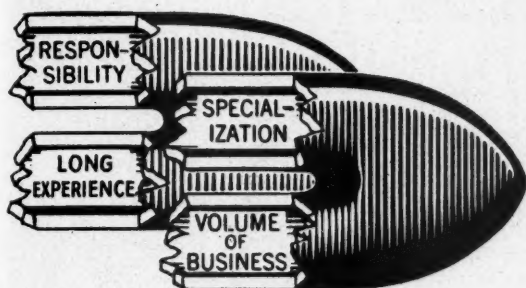
ERIE.—Reorganization.—As a result of the recent reorganization the Bureau of Internal Revenue has advised this company that the old security holders who received \$45 in cash with new income bonds and a \$5 dividend on the new preferred stock during 1941 should treat these cash payments as taxable income. In addition, the Bureau has held that no capital gains or losses were incurred upon exchange of the old securities for the new.

ERIE.—Offer to Leased Line's Bondholders.—Holders of the New York & Greenwood Lake prior lien 5 per cent bonds have been offered the exchange of cash and securities of the Erie for each \$1,000 bond held. The offer, subject to I. C. C. approval, is conditional upon 90 per cent of the bonds being deposited by June 1, the exchange date. In exchange for each \$1,000 New York & Greenwood Lake bond, the Erie has offered \$90 in cash; \$500 in Erie first consolidated mortgage 4 per cent bonds, series B; \$250 in Erie general mort-

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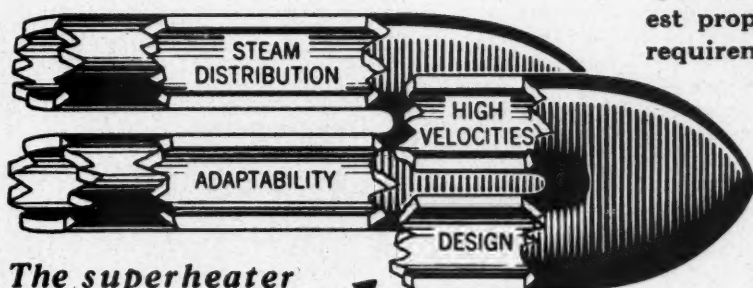
The Approach to a SUPERHEATER SPECIFICATION

Specialization



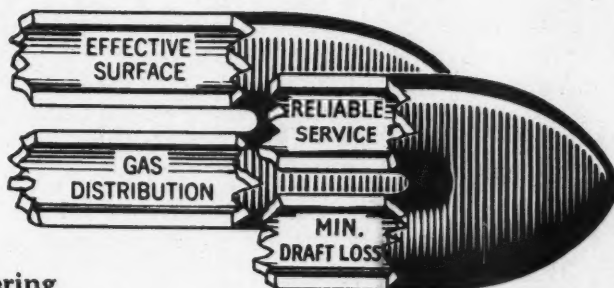
Organizations who do specialized work are leaders only when the specialization is of long standing and has wide acceptance.

It is fitting to state that the organization behind Elesco superheaters and its affiliates have specialized in superheaters for over thirty years. But this in itself is not nearly as important as the fact that in this specialization it is serving by far the greatest proportion of the world's superheater requirements.



The superheater tube **MAKES** the RETURN BEND

The RETURN BEND **MAKES** the Elesco superheater



In addition to the specialized engineering and experience behind Elesco in America—you have the added advantage of supplementing them with the research, practical experience and developments of Elesco affiliates in other countries.

Super-specialization might be a more appropriate term applying to this specialized service—Be sure to use it.



A-1494

<p>SUPERHEATERS • FEEDWATER HEATERS AMERICAN THROTTLES • STEAM DRYERS EXHAUST STEAM INJECTORS • PYROMETERS</p>	<p>THE SUPERHEATER C O M P A N Y</p>	<p>Representative of AMERICAN THROTTLE COMPANY, INC. 40 East 42nd Street, NEW YORK 122 S. Michigan Blvd., CHICAGO . . . Montreal, Canada THE SUPERHEATER COMPANY, LTD.</p>
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gage 4½ per cent income bonds, series A; \$50 in scrip for Erie general mortgage 4½ per cent income bonds, series A; and \$300 in Erie 5 per cent preferred stock, series A. The Erie also offered bondholders the option of receiving \$750 in cash for each \$1,000 bond. There are \$1,471,600 of the Greenwood Lake bonds outstanding.

GREAT NORTHERN.—Annual Report.—The 1941 annual report of this road shows a net income, after interest and other charges, of \$16,785,159, compared with a net income of \$10,208,194 in 1940. Selected items from the income statement follow:

	1941	Increase or Decrease Compared with 1940
Average Mileage Operated	8,071.53	+2.81
RAILWAY OPERATING REVENUES	\$125,044,883	+\$23,301,737
Maintenance of way	16,628,547	+3,397,758
Maintenance of equipment	21,236,550	+3,800,052
Transportation	34,862,432	+4,828,012
TOTAL OPERATING EXPENSES	78,323,366	+12,421,643
Operating ratio	62.6	-2.2
NET REVENUE FROM OPERATIONS	46,721,517	+10,880,094
Railway tax accruals	16,867,023	+4,593,817
Railway operating income	29,854,494	+6,286,277
Equipment rents—Net Dr.	1,223,884	-137,264
Joint facility rents—Net Dr.	629,075	+229,070
NET RAILWAY OPERATING INCOME	28,001,535	+6,194,471
Other income	3,626,250	+408,111
TOTAL INCOME	31,627,785	+6,602,582
Rent for leased roads and equipment	24,889	-39
Interest on funded debt*	13,484,625	-238,067
TOTAL FIXED CHARGES	13,915,920	-296,208
NET INCOME	16,785,159	+6,576,965
Disposition of net income:		
Income applied to sinking and other reserve funds	259,899	-3,164
Income appropriated for investment in physical property	15,000	.....
Total appropriations of income	274,899	-3,164
Income balance transferred to profit & loss	\$16,510,260	+\$6,580,129

* Fixed interest.

LEHIGH & HUDSON RIVER.—Annual Report.—The 1941 annual report of this road shows a net income, after interest and other charges, of \$454,843, compared with a net income of \$285,031 in 1940. Selected items from the income statement follow:

	1941	Increase or Decrease Compared with 1940
RAILWAY OPERATING REVENUES	\$2,257,572	+\$528,038
Maintenance of way and structures	267,725	+58,822
Maintenance of equipment	327,109	+43,585
Transportation	626,294	+97,372
TOTAL OPERATING EXPENSES	1,343,510	+201,620
Operating ratio	59.5	-6.5
NET REVENUE FROM OPERATIONS	914,062	+326,418
Railway tax accruals	333,671	+134,031

Equipment rents	79,595	+11,403
Joint facility rents	70,854	+12,140
NET RAILWAY OPERATING INCOME	429,942	+168,845
Non-operating income	25,571	+801
GROSS INCOME	455,513	+169,646
Miscellaneous rents	33	.....
TOTAL DEDUCTIONS FROM GROSS INCOME	670	-166
NET INCOME	\$454,843	+\$169,812

INDIANA.—Abandonment of Operation.—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon operation under track-age rights over four miles of tracks of the Indianapolis Railways in Indianapolis, Ind.

LIME ROCK.—Abandonment.—This company has asked the Interstate Commerce Commission for authority to abandon all of its line in Rockland, Me., consisting of 3.5 miles of single track and 7.5 miles of sidings.

MISSOURI-KANSAS-TEXAS.—Pledge of Collateral.—This company has asked the Interstate Commerce Commission to modify its orders in Finance Dockets No. 1250 and 6623 so as to permit any of the prior lien mortgage five per cent gold bonds, series A, and/or prior lien mortgage four per cent gold bonds, series B, authorized to be issued under these orders, to be pledged from time to time to and including December 30, 1944, with the Reconstruction Finance Corporation as additional security for its outstanding loans as extended.

MISSOURI PACIFIC.—Abandonment.—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon 952 ft. of track in Arkansas City, Ark., and a line extending from Bird's Point, Mo., to Alfalfa Center, two miles.

PENNSYLVANIA.—Abandonment by the Pennsylvania, Ohio & Detroit.—The Pennsylvania, Ohio & Detroit and the Pennsylvania, respectively, would be authorized to abandon a portion of the Walhonding branch and the operation thereof extending from a connection with the main line at Coshocton, Ohio, to Warsaw Junction, 8.9 miles, if Division 4 of the Interstate Commerce Commission adopts a recommended order of its Examiner A. G. Nye.

PITTSBURGH, LISBON & WESTERN.—Purchase, Operation, Securities, and Abandonment.—This company would be authorized to purchase and operate a single-track line extending from Signal, Ohio, to Columbiana, 6.5 miles, now owned and operated by the Youngstown & Suburban, if Division 4 of the Interstate Commerce Commission adopts a recommended order of its Examiners Jerome K. Lyle and F. E. Grutzik.

At the same time the examiners would also authorize this company to issue an unsecured negotiable promissory note in the face amount of \$400,000 in part payment of the purchase price of the line, and to abandon a line extending from Signal, Ohio, to Lisbon, 7.4 miles.

The application was opposed by the Pennsylvania, the Pittsburgh & Lake Erie, and the Baltimore & Ohio on the ground

that the acquisition of the Youngstown & Suburban's line by the Pittsburgh, Lisbon & Western would tend to divert traffic from their lines. The proposed report points out that the capital stock of both the P. L. & W. and the Y. & S. is owned by the Pittsburgh Coal Company.

PITTSBURGH & WEST VIRGINIA.—Annual Report.—The 1941 annual report of this road shows a net income after interest and other charges of \$1,174,794, compared with a net income of \$326,851 in 1940. Selected items from the income statement follow:

	1941	Increase or Decrease Compared with 1940
RAILWAY OPERATING REVENUES	\$5,283,114	+\$1,125,261
Maintenance of way and structures	850,936	+174,982
Maintenance of equipment	946,519	-137,900
Transportation	1,118,879	+195,659
TOTAL OPERATING EXPENSES	3,422,613	+262,919
NET REVENUE FROM OPERATIONS	1,860,501	+862,343
Railway tax accruals*	272,924	-29,387
Railway operating income	1,587,577	+891,730
Equipment rents—Net Cr.	77,147	-53,055
Joint facility rents—Net Dr.	10,323	-15,515
NET RAILWAY OPERATING INCOME	1,654,401	+854,189
Non-operating income	427,752	-9,643
GROSS INCOME	2,082,153	+844,546
Miscellaneous rents	289	-30
Interest on funded debt	877,311	+85,054
TOTAL DEDUCTIONS FROM GROSS INCOME	907,359	-3,397
NET INCOME	1,174,794	+847,943
Income applied to sinking fund	474,459	+449,796
Income transferred to profit and loss	\$700,335	+\$398,146

* Includes an accrual of \$17,089.54 for Federal Income Tax.

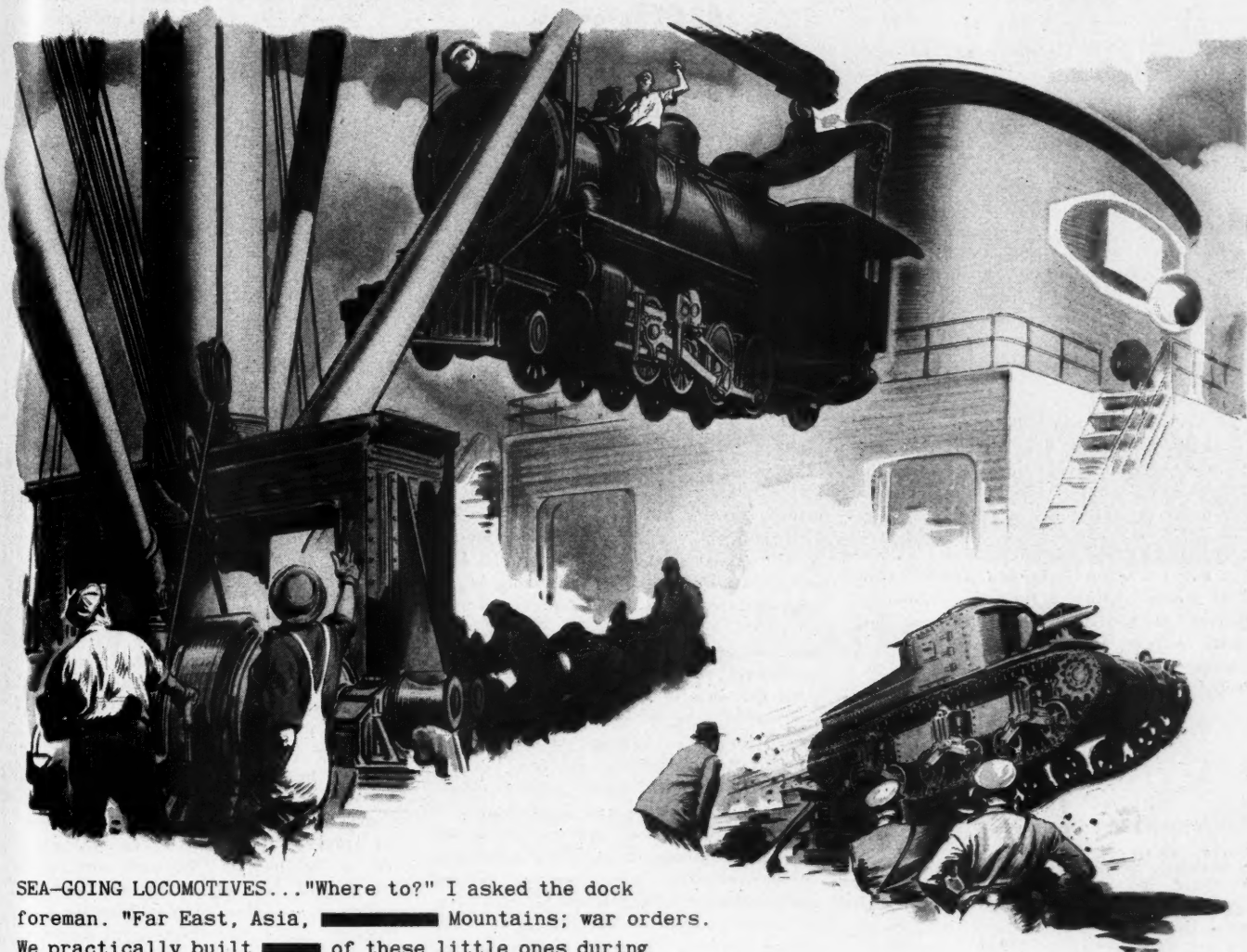
ST. LOUIS SOUTHWESTERN.—Annual Report.—The 1941 annual report of this road shows a net income, after interest and other charges, of \$4,472,048, compared with a net deficit of \$248,758 in 1940. Selected items from the income statement follow:

	1941	Increase or Decrease Compared with 1940
Average Mileage Operated	1,621.89	-37.43
RAILWAY OPERATING REVENUES	\$28,256,047	+\$7,614,043
Maintenance of way and structures	4,073,085	+733,864
Maintenance of equipment	3,754,693	+345,993
Transportation	7,640,965	+1,396,877
TOTAL OPERATING EXPENSES	17,526,197	+2,568,021
Operating ratio	62.03	-10.43
NET REVENUE FROM OPERATIONS	10,729,849	+5,046,022
Railway tax accruals	1,572,577	+250,239
Railway operating income	9,157,273	+4,795,784
Net rents—Dr.	1,662,202	+96,304
NET RAILWAY OPERATING INCOME	7,495,071	+4,699,479
Other income	112,834	+33,960
TOTAL INCOME	7,607,905	+4,733,440

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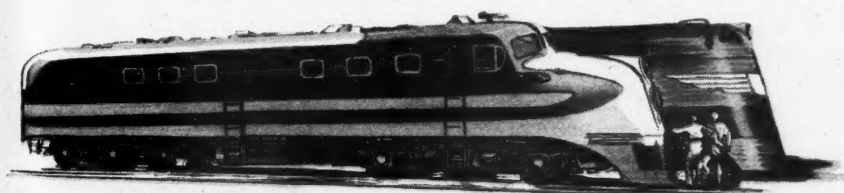
AMERICAN NOTES by Raymond Gram Swing

Report from a national arsenal of mobile power



SEA-GOING LOCOMOTIVES... "Where to?" I asked the dock foreman. "Far East, Asia, ████████ Mountains; war orders. We practically built ████████ of these little ones during the noon hour! Don't look so surprised. We build locomotives of all kinds, all sizes, and by the hundreds... been at it a hundred years, know how to do it."

ON THE PROVING GROUND... Tanks, lots of tanks, wheeling and jumping like cavalry! Believe me, special skills and 100 years of engineering experience are worth plenty... these days! And when they told me how many, I felt good. I felt very good.



IN THE ASSEMBLY YARDS... "Which is which?" I asked the super. "Don't blame you for not knowing," was the answer. "Both streamlined to the ears! Near one is Diesel-Liner, other is Steam-Liner." Each is an ultra-modern power source, speeding record-making, wartime traffic over U. S. rails.



IN THE MACHINE SHOP... "What's that?" I asked. "Roller-bearing for a battle-ship turret, machined as fine as a watch part," was the answer. No wonder our American warships have an edge. Equipment like this means everything in active service.

AMERICAN LOCOMOTIVE

MANUFACTURERS OF MOBILE POWER

STEAM, DIESEL AND ELECTRIC LOCOMOTIVES
MARINE DIESELS, TANKS
GUN CARRIAGES AND OTHER ORDNANCE

██████ Sorry we can't be more explicit. Revelation of details might be of aid to the enemy... endanger American lives.

Rent for leased roads and equipment	13,552	-8
Interest on funded debt	2,759,523	-84,122
TOTAL FIXED CHARGES	3,023,893	-85,087
NET INCOME	\$4,472,048	+\$4,720,806

SOUTHERN PACIFIC.—Abandonment.—This company has asked the Interstate Commerce Commission for authority to abandon its Whittier branch extending from Studebaker, Calif., to Whittier, 5.9 miles.

SOUTHERN PACIFIC.—Bank Loans Prepaid.—This road has paid the installments due on its bank loans on October 1, 1944, and January 1, 1945, amounting to \$2,500,000, thereby reducing outstanding bank loans to \$7,500,000, which will mature in quarterly installments from April 1, 1943, to July 1, 1944.

TAMPA NORTHERN.—Ratification of Trustee.—George G. Thomas has asked the Interstate Commerce Commission to ratify his appointment as trustee of this company during reorganization proceedings under section 77 of the Bankruptcy Act.

UNION PACIFIC.—Annual Report.—The 1941 annual report of this road shows net income of \$28,857,420 after interest and other charges, an increase of \$9,411,539 as compared with net income in 1940. Selected items from the income account follow:

	1941	Increase or Decrease Compared with 1940
RAILWAY OPERATING REVENUES	\$218,091,994	+\$49,927,736
TOTAL OPERATING EXPENSES	159,997,894	+39,048,783
Operating ratio	73.36	+1.44
NET REVENUE FROM OPERATIONS	58,094,100	+10,878,953
Railway tax accruals*	17,784,641	+3,091,253
Hire of Equipment—Dr.	9,048,383	+278,029
Joint facility rents	2,285,464	+186,514
NET RAILWAY OPERATING INCOME	30,535,373	+7,176,413
Other income	12,787,102	+759,842
TOTAL INCOME	43,322,475	+7,936,255
Interest on funded debt	13,619,758	-1,047,596
TOTAL FIXED CHARGES	14,465,056	-1,475,284
NET INCOME	\$28,857,420	+\$9,411,539

* No liability for excess-profits tax is indicated for either year.

WABASH.—Receivership Expenses.—Division 4 of the Interstate Commerce Commission has fixed a lump-sum maximum limit of \$200,000 for the expenses of the reorganization managers in effecting a reorganization of this company, exclusive of the fees and expenses of attorneys for the reorganization managers.

Average Prices of Stocks and Bonds

	Apr. 28	Last week	Last year
Average price of 20 representative railway stocks..	24.22	24.71	29.51
Average price of 20 representative railway bonds..	66.79	67.04	66.03

Dividends Declared

Wheeling & Lake Erie.—4 Per Cent Prior Lien, \$1.00, quarterly; 5½ Per Cent Convertible Preferred, \$1.38, quarterly, both payable May 1 to holders of record April 25.

Railway Officers

EXECUTIVE

D. T. Lawrence, chairman of the Trunk Line Association and the Traffic Executive Association—Eastern territory, and a member of the Traffic Advisory Committee of the Association of American Railroads, with headquarters at New York, retired on May 1. Mr. Lawrence was born at Marysville, Ohio, on July 20, 1871, and was educated in the Marysville high school and the Eastman Business College at Poughkeepsie, N. Y. He entered railroad service in 1890 as a stenographer on the Central New England & Western (now part of the New York, New Haven & Hartford), and two years later was transferred to Hartford, Conn., as a clerk in the general freight office of the same road. Later in 1892 he became a clerk in the New England agency of the National Dispatch Fast Freight Line at Boston, Mass., remaining with that organization until 1911 as New England agent at Boston, and manager at Buffalo, N. Y., and Boston, successively. In 1911 Mr. Lawrence entered the service of the Central Vermont as general freight agent at St. Albans, Vt., becoming a member of the Official Classification Committee at New York in 1915. In 1920 he became general freight agent of the Delaware, Lackawanna & Western at New York, and in 1926 he was appointed chairman of the Official Classification Committee, which position he held until September, 1932, when he was elected chairman of the Traffic Executive Association—Eastern territory, and of the Trunk Line Association, which positions he held until his retirement.

FINANCIAL, LEGAL AND ACCOUNTING

W. R. King, claim agent of the Southern at Charlotte, N. C., has been promoted to assistant chief claim agent at Greensboro, N. C., succeeding **H. L. Guin**, whose promotion to chief claim agent at Washington, D. C., was reported in the *Railway Age* of April 11.

Vernon W. Foster, general solicitor of the Illinois Central, has been promoted to general counsel, with headquarters as before at Chicago, succeeding **Edward C. Craig**, who retired from active service on April 30. **Charles A. Helsell**, general attorney, has been advanced to general solicitor, relieving Mr. Foster.

Mr. Foster was born at Norwalk, Ohio, on January 16, 1881, and attended a business college at Sandusky, Ohio, later taking a secretarial course at a shorthand school at Chicago. He entered the service of the Illinois Central in July, 1898, as secretary to the auditor of passenger receipts at Chicago, being transferred to the law department in the following year as secretary to the assistant general solicitor. Mr. Foster then began the study of law in his spare time at the Kent College of Law, Chicago,

completing his course in 1902. He was advanced through the positions of court reporter, investigator of claims and assistant to the local attorney, being appointed assistant local attorney for the Illinois Central in Cook county on January 1, 1906. On July 1, 1916, he was promoted to local



Vernon W. Foster

attorney for the same territory and on January 1, 1926, he was further advanced to district attorney. Mr. Foster was appointed general attorney at Chicago on July 1, 1932, and in April, 1933, he was promoted to general solicitor for the Northern lines. In 1938 his jurisdiction was extended to cover the system.

Mr. Craig was born at Mattoon, Ill., on April 7, 1872, and graduated from the University of Illinois in 1893, later attending Harvard Law School. He was admitted to the bar in 1896 and entered the practice of law in partnership with his father in the same year at Mattoon, later entering into a partnership with his brothers. In 1901, Mr. Craig was appointed local attorney for the Illinois Central at Mattoon and in January, 1923, he was promoted to general attorney at Chicago. On January 1, 1928, he was further advanced to general solicitor of the Northern Lines,

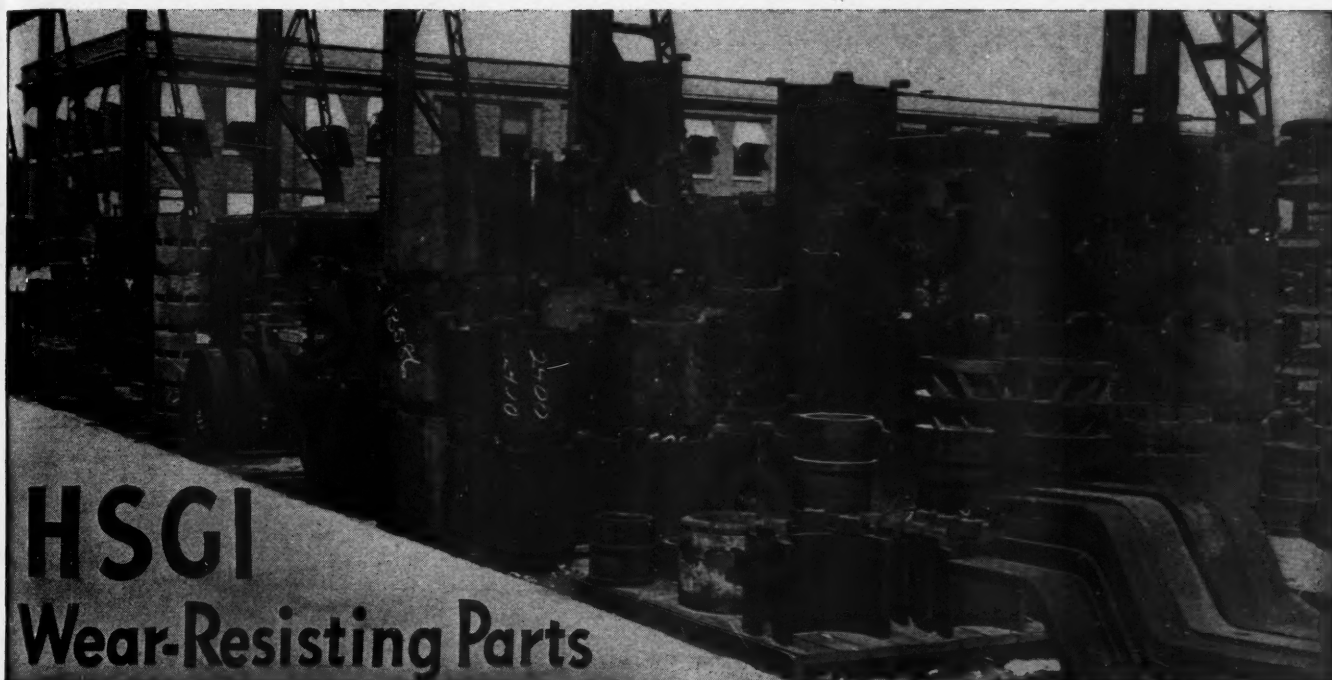


Edward C. Craig

and in April, 1933, he was elected general counsel, which position he held until his retirement.

Mr. Helsell was born at Cedar Rapids, Iowa, on March 1, 1883, and was educated at Iowa State College and the University

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HSGI Wear-Resisting Parts

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IT'S the quality of materials that counts—not the quantity. The longer they last the fewer the requisitions for new parts.

The wear-resisting properties of HUNT-SPILLER *Air Furnace* GUN IRON Castings will not only help to conserve vital materials but also manpower which is still more important to Victory.

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- Cylinder Bushings
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- Pistons or Piston Bull Rings
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- Crosshead Shoes
- Hub Liners
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- for Cylinders and Valves
- (Duplex Springs for Above
- Sectional Packing)
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- Cylinder Rings All Shapes
- Valve Weight Valves
- Light Weight Valves
- Cylinder Liners and Pistons
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of Michigan, graduating from the Law school of the latter university in 1906. From the latter year until 1911, Mr. Helsell practiced law at Enid, Okla., and during three years of this period he served also as city attorney at the same point. In 1911



Charles A. Helsell

he joined the Illinois Central as district attorney at Ft. Dodge, Iowa, and in January, 1934, he was promoted to general attorney at Chicago, which position he was holding at the time of his recent promotion.

SPECIAL

Charles E. Coe has been appointed special representative of the president of the Erie, with headquarters at Cleveland, Ohio. Mr. Coe will be in charge of public relations and will edit the Erie magazine. He succeeds to the duties of **Frank M. America**, whose death on March 25 was reported in the *Railway Age* of April 4.

ENGINEERING & SIGNALING

Stanley G. Phillips, whose promotion to engineer maintenance of way of the Maine Central and the Portland Terminal at Portland, Me., was reported in the *Railway Age* of April 25, was born on February 26, 1895, at Westbrook, Me., and was



Stanley G. Phillips

graduated from the University of Maine in 1917. He entered the service of the Lehigh Valley as a rodman in 1917 and, after

serving overseas with the United States Army Engineers from 1917 to 1919, he returned to the Lehigh Valley, serving successively as assistant division engineer and track supervisor. In 1929 he was appointed track supervisor of the Central of New Jersey. Mr. Phillips entered the service of the Boston & Maine in November, 1929, as assistant division engineer of the Terminal division and in 1939 he was promoted to division engineer, which position he held until his recent promotion.

OPERATING

William A. Wood, whose retirement as general manager of the New York, Ontario & Western at Middletown, N. Y., was reported in the *Railway Age* of April 4, was born at Cornwall, Ont., Canada, on August 27, 1875. He entered railroad service in 1892 as an extra operator on the New York, Ontario & Western, serving until 1895 in relief agent work and in clerical work in the maintenance of way department. From 1895 to 1899 he served in the train dispatcher's office and in the latter year he became secretary to general superintendent, later serving successively as timekeeper and chief clerk in the transportation department and chief clerk to fed-



William A. Wood

eral manager and general manager. In 1923 Mr. Wood was appointed superintendent of the Northern division, becoming general superintendent on July 1, 1938, and general manager on March 1, 1939.

Colonel Norman A. Ryan, general manager of the Western lines of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Seattle, Wash., has been granted a leave of absence to report for active duty May 15 at Fort Snelling, Minn., with the Military Railway Service of the United States Army. Mr. Ryan will be chief of transportation of military railroads.

E. P. Stine, assistant to the general manager of the Lines East of the Missouri river of the Chicago, Burlington & Quincy, with headquarters at Chicago, has been promoted to superintendent of the Colorado & Southern, with headquarters at Denver, Colo., succeeding **William P. Wilson**, who has entered military service. **E. G. Wesson**, trainmaster on the Burlington at Aurora, Ill., has been advanced to as-

sistant to the general manager at Chicago, relieving Mr. Stine and **J. C. Grisinger, Jr.**, trainmaster at Galesburg, Ill., has been transferred to Aurora, replacing Mr. Wesson. **S. R. Harris**, night chief dispatcher at Galesburg, has been promoted to trainmaster at that point, succeeding Mr. Grisinger. **J. A. Lloyd**, claim agent at St. Joseph, Mo., has been appointed trainmaster at Beardstown, Ill., a newly created position.

TRAFFIC

Darrow Kirkpatrick, assistant general freight agent of the Southern, with headquarters at Atlanta, Ga., has been promoted



Darrow Kirkpatrick

to general freight agent in charge of divisions, succeeding **Charles L. Bateman**, who succeeds the late **A. E. Hendee**. **Marion F. Dukes, Jr.**, chief clerk, has been promoted to assistant general freight agent, succeeding Mr. Kirkpatrick. **L. D. Shelnuitt**, chief clerk, has been promoted to assistant to general freight agent.

Mr. Kirkpatrick was born at Montgomery, Ala., on May 3, 1898, and received his education in Washington, D. C. He entered the service of the Southern at Washington in February, 1914, serving in various clerical positions in the freight traffic department until November, 1932, when he was appointed chief clerk to the general freight traffic manager. In November, 1937, he was promoted to assistant general freight agent and assigned to the traffic vice-president's office at Washington. On January 1, 1940, Mr. Kirkpatrick was appointed assistant general freight agent at Atlanta, Ga., which position he held until his recent promotion.

OBITUARY

V. R. Burton, superintendent of the Northern California, Nevada and Oregon division of the Railway Express Agency, Inc., with headquarters at Sacramento, Cal., died suddenly on March 25, while aboard a passenger train.

George G. Tunell, who retired on December 31, 1941, as commissioner of taxes of the Atchison, Topeka & Santa Fe, with headquarters at Chicago, died on April 29 in the Presbyterian hospital in that city.

You Still Have Time

—If you act promptly

DUE to the complex mechanical task of publishing an issue such as the Freight Progress in War Number, much of the printing must be completed early . . . and advertising copy and engravings should be received well in advance of the usual *Railway Age* closing date.

If you have not yet made space reservations for the May 23 issue . . . the timely survey of freight service and equipment in wartime . . . may we urge you to do so now. There is ample time to tie-in a helpful message regarding your products or services with this valuable analytical reference number, but you must act promptly.

Plan now to make your space reservations without delay. Use this outstanding *Railway Age* service to place your story before all the groups that exert a vital influence in "keeping the freight rolling". Send your copy and cuts at the earliest possible moment.

May 23, 1942, Issue



Railway Age

A Simmons-Boardman Publication



Freight Operating Statistics of Large Steam Railways—Selected Items

Region, road, and year	Miles of road operated	Train-miles	Locomotive-miles		Car-miles		Ton-miles (thousands)		Number of road locomotives on line					
			Principal and helper	Light	Loaded (thousands)	Per cent loaded	Gross excluding locomotives and tenders	Net revenue and non-revenue	Serviceable		Un-serviceable	Per cent un-serviceable		
									Not stored	Stored				
New England Region:														
Boston & Albany	1942	362	170,923	189,934	20,924	4,054	63.9	250,662	97,600	69	..	14	16.9	
.....	1941	362	139,231	144,756	10,711	2,999	65.2	173,780	62,334	63	..	24	27.6	
Boston & Maine	1942	1,853	341,612	394,760	37,253	12,270	69.4	729,175	298,428	148	4	22	12.6	
.....	1941	1,894	291,082	331,646	29,017	10,411	67.6	606,181	232,165	131	..	40	23.4	
N. Y., New H. & Hartf.†.....	1942	1,816	453,588	578,209	52,836	16,771	68.7	946,810	385,176	212	..	53	17.4	
.....	1941	1,830	362,794	454,926	30,833	13,127	67.7	724,302	277,337	196	..	61	24.7	
Great Lakes Region:														
Delaware & Hudson	1942	849	315,163	374,682	40,333	11,573	66.0	783,738	386,494	142	22	67	29.0	
.....	1941	849	248,981	291,911	34,841	8,936	62.8	596,688	275,173	123	43	81	32.8	
Del., Lack. & Western	1942	982	362,350	420,132	60,699	14,332	70.3	881,952	390,878	139	23	30	17.3	
.....	1941	983	340,552	395,264	56,360	12,977	68.0	768,305	310,805	139	7	63	30.1	
Erie	1942	2,251	829,915	875,922	51,639	36,126	68.0	2,210,584	913,530	286	31	95	23.0	
.....	1941	2,266	689,240	731,839	47,800	29,882	67.0	1,821,521	734,688	243	10	170	40.2	
Grand Trunk Western	1942	1,026	252,758	255,623	2,004	7,254	65.8	445,652	173,439	70	1	19	21.1	
.....	1941	1,023	263,134	269,551	2,007	7,945	63.0	492,527	177,006	75	..	22	22.7	
Lehigh Valley	1942	1,251	382,502	415,053	66,705	15,173	68.2	976,205	448,993	125	7	41	23.7	
.....	1941	1,252	343,235	376,812	59,047	13,401	65.8	837,293	353,103	106	..	66	38.4	
New York Central	1942	10,497	3,226,170	3,475,693	214,131	111,929	61.8	7,685,603	3,406,082	1,106	68	211	15.2	
.....	1941	10,522	2,852,857	3,015,615	200,312	98,209	60.5	6,672,662	2,832,726	994	55	310	22.8	
New York, Chi. & St. L.	1942	1,657	729,205	745,043	10,420	25,679	66.1	1,630,210	687,909	162	..	10	5.8	
.....	1941	1,672	552,204	557,149	7,735	20,182	64.3	1,260,537	498,138	137	10	19	11.4	
Pere Marquette	1942	2,021	369,285	380,617	7,867	10,300	65.9	668,154	287,425	141	4	18	11.0	
.....	1941	2,068	384,727	394,188	7,456	10,745	61.6	690,787	263,334	126	1	30	19.1	
Pitts. & Lake Erie	1942	232	91,931	95,114	29	3,622	63.4	303,146	173,468	46	..	14	23.3	
.....	1941	233	83,976	86,752	25	3,342	61.4	277,912	154,456	34	8	16	27.6	
Wabash	1942	2,382	638,892	660,220	13,445	21,656	69.4	1,310,053	537,710	156	29	69	27.2	
.....	1941	2,397	605,899	617,377	12,652	19,832	65.5	1,193,467	441,740	149	9	106	40.2	
Central Eastern Region:														
Baltimore & Ohio	1942	6,238	2,069,028	2,592,653	276,459	64,922	63.6	4,463,168	2,065,220	901	32	199	17.6	
.....	1941	6,261	1,619,078	2,016,109	209,960	50,566	62.5	3,505,188	1,598,812	738	139	281	24.3	
Central of New Jersey†.....	1942	661	223,739	254,816	48,022	6,698	60.2	485,536	239,309	100	19	28	19.0	
.....	1941	680	180,813	203,769	38,686	5,743	60.3	398,169	195,707	78	10	54	38.0	
Chicago & Eastern Ill.	1942	925	178,510	179,498	3,204	4,678	68.1	297,914	136,180	63	4	20	23.0	
.....	1941	925	171,831	172,462	2,993	4,646	65.9	285,582	120,411	59	1	31	34.1	
Elgin, Joliet & Eastern	1942	392	139,542	141,312	1,478	3,776	61.3	291,603	147,529	69	..	10	12.7	
.....	1941	390	125,589	127,353	1,734	3,285	57.6	262,301	129,367	62	..	12	16.2	
Long Island	1942	374	27,096	28,350	19,836	294	54.0	22,151	8,820	42	2	9	17.0	
.....	1941	375	25,762	26,940	16,425	258	51.1	19,857	7,882	41	7	7	14.6	
Pennsylvania System	1942	9,946	3,955,608	4,648,055	558,480	146,547	63.9	9,861,279	4,493,350	1,863	71	180	8.5	
.....	1941	9,960	3,219,715	3,847,880	443,407	119,041	60.4	8,237,880	3,594,555	1,428	111	640	29.4	
Reading	1942	1,430	541,549	598,937	75,788	16,146	63.5	1,200,038	622,865	267	21	46	13.8	
.....	1941	1,432	446,096	495,624	62,471	13,623	60.5	969,751	492,523	228	9	108	31.3	
Pocahontas Region:														
Chesapeake & Ohio	1942	3,053	855,772	909,673	38,925	36,044	57.2	2,949,913	1,619,418	398	37	70	13.9	
.....	1941	3,043	797,996	852,851	40,438	36,042	57.6	2,943,063	1,596,697	367	70	73	14.3	
Norfolk & Western	1942	2,159	727,045	767,796	47,998	30,510	58.0	2,560,054	1,361,136	301	15	17	5.1	
.....	1941	2,169	710,156	758,663	48,068	31,821	57.6	2,618,086	1,368,415	309	12	24	7.0	
Southern Region:														
Atlantic Coast Line	1942	4,986	874,521	891,316	13,248	21,718	62.5	1,343,055	517,557	313	..	29	8.5	
.....	1941	5,073	725,993	744,442	11,201	16,346	60.4	1,017,209	368,954	297	3	39	11.5	
Central of Georgia†.....	1942	1,783	272,881	276,714	4,384	6,194	72.2	370,561	157,989	109	..	11	9.2	
.....	1941	1,831	261,306	263,227	3,900	6,083	72.4	342,993	138,608	91	..	30	24.8	
Gulf, Mobile & Ohio	1942	1,959	255,701	309,285	1,594	8,419	70.6	509,137	225,799	94	2	14	12.7	
.....	1941	1,963	229,428	249,358	2,199	7,192	71.0	418,307	176,275	86	4	16	15.1	
Illinois Central (incl. Yazoo & Miss. Vv.)	1942	6,500	1,647,201	1,656,428	31,022	52,065	62.9	3,549,311	1,594,341	614	13	80	11.3	
.....	1941	6,557	1,295,773	1,300,697	23,580	38,813	62.3	2,571,710	1,098,661	551	11	194	25.7	
Louisville & Nashville	1942	4,789	1,361,187	1,465,341	38,717	32,440	61.8	2,290,769	1,111,907	381	18	61	13.3	
.....	1941	4,856	1,188,098	1,290,877	34,867	29,722	60.0	2,121,578	1,026,262	377	25	60	13.0	
Seaboard Air Line*	1942	4,293	806,269	846,201	7,177	20,705	67.3	1,276,277	527,299	280	..	24	7.9	
.....	1941	4,298	663,742	690,692	4,233	16,326	61.7	1,030,289	393,567	256	1	45	14.9	
Southern	1942	6,469	1,738,414	1,773,225	26,151	39,687	67.7	2,414,282	1,050,148	575	..	91	13.7	
.....	1941	6,521	1,533,313	1,562,550	24,117	35,312	66.0	2,131,983	886,444	509	1	127	19.9	
Northwestern Region:														
Chi. & North Western†.....	1942	8,262	976,689	1,003,195	20,879	29,318	64.6	1,929,141	776,927	335	39	174	31.8	
.....	1941	8,316	807,206	836,293	16,337	24,099	64.0	1,541,317	602,475	312	39	251	41.7	
Chicago Great Western	1942	1,447	270,781	276,069	6,905	8,130	65.5	516,630	240,331	73	1	12	14.0	
.....	1941	1,447	246,647	247,765	3,710	7,136	61.4	456,359	164,214	71	..	14	16.5	
Chi., Milw., St. P. & Pac.†.....	1942	10,813	1,396,812	1,469,597	60,567	43,721	63.5	2,922,318	1,285,332	477	64	99	15.5	
.....	1941	10,847	1,184,604	1,238,946	45,889	35,988	63.9	2,301,032	952,926	431	61	132	21.2	
Chi., St. P., Minneap. & Om.	1942	1,618	221,104	237,422	11,373	5,522	68.3	349,845	149,979	114	8	11	8.3	
.....	1941	1,618	200,481	212,102	9,958	4,824	65.9	298,940	120,071	108	10	13	9.9	
Dul., Missabe & Iron Range.	1942	542	23,735	23,871	458	418	57.7	26,517	11,381	27	24	29	36.3	
.....	1941	541	21,962	22,046	457	313	61.1	19,120	8,325	20	19	19	32.8	
Great Northern	1942	7,982	1,015,087	1,011,611	32,465	34,551	65.9	2,295,309	982,889	364	53	82	16.4	
.....	1941	7,970	795,928	790,144	26,186	25,071	63.0	1,644,757	645,742	333	61	137	25.8	
Minneap., St. P., & S. St. M.†.....	1942	4,258	441,199	451,620	8,732	11,086	66.4	706,880	311,611	136	2	7	4.8	
.....	1941	4,247	363,489	368,512	4,605	8,525	65.3	522,459	215,693	117	..	7	5.6	
Northern Pacific	1942	6,593	808,594	860,315	59,365	31,189	71.6	1,956,992	916,238	329	66	56	12.4	
.....	1941	6,422	629,519	665,129										

for the Month of February, 1942, Compared with February, 1941

Region, road, and year	Number of freight cars on line			Percent un-serv-ice-able	Gross ton-miles per train-hour, excluding locomotives and tenders	Gross ton-miles per train-mile, excluding locomotives and tenders	Net ton-miles per train-mile	Net ton-miles per loaded car-mile	Net ton-miles per car-day	Car-miles per car-day	Pounds of coal			
	Home	Foreign	Total								per 1000 Net ton-miles per mile of road per day	gross ton-miles including locomotives and tenders	Loco-motive miles per locomotive-day	
New England Region:														
Boston & Albany	1942	501	5,656	6,157	0.2	24,240	1,484	578	24.1	602	39.1	9,629	164	94.7
1941	694	5,418	6,112	1.0	21,596	1,264	453	20.8	367	27.1	6,150	161	68.9	
Boston & Maine	1942	3,399	11,497	14,896	2.3	29,574	2,143	877	24.3	746	44.2	5,752	107	94.8
1941	4,048	9,216	13,264	2.4	29,415	2,089	800	22.3	608	40.4	4,378	104	82.0	
N. Y., New H. & Hartf.†	1942	4,340	21,589	25,929	2.1	29,746	2,120	863	23.0	533	33.8	7,575	113	92.6
1941	5,773	15,126	20,899	4.4	28,992	2,027	776	21.1	469	32.8	5,413	116	74.4	
Great Lakes Region:														
Delaware & Hudson	1942	5,772	5,739	11,511	5.2	38,853	2,502	1,234	33.4	1,197	54.3	16,258	115	66.3
1941	7,509	4,417	11,926	4.6	37,368	2,413	1,113	30.8	809	41.8	11,576	121	50.5	
Del., Lack & Western	1942	7,284	10,052	17,336	3.7	40,752	2,449	1,086	27.3	773	40.3	14,216	134	91.0
1941	10,126	7,611	17,737	3.9	38,277	2,276	921	24.0	631	38.7	11,292	140	81.9	
Erie	1942	13,344	22,195	35,539	2.1	46,428	2,682	1,109	25.3	915	53.2	14,494	106	87.9
1941	14,794	17,395	32,189	3.0	45,597	2,666	1,075	24.6	827	50.2	11,579	106	72.5	
Grand Trunk Western	1942	4,044	7,884	11,928	3.3	34,432	1,775	691	23.9	546	34.7	6,037	101	112.0
1941	3,261	8,825	12,086	6.2	35,446	1,890	679	22.3	534	38.1	6,180	98	105.3	
Lehigh Valley	1942	7,989	16,962	24,951	1.0	43,973	2,606	1,109	25.3	915	53.2	14,494	106	87.9
1941	8,712	11,046	19,758	1.4	46,137	2,478	1,045	26.3	639	36.9	10,073	117	96.4	
New York Central	1942	64,446	77,215	141,661	4.2	39,395	2,407	1,067	30.4	840	44.7	11,589	107	105.8
1941	75,531	64,906	140,437	8.1	39,029	2,357	1,001	28.8	723	41.4	9,615	110	93.5	
New York, Chi. & St. L.	1942	5,043	14,037	19,080	1.9	38,599	2,242	946	26.8	1,338	75.6	14,827	101	167.5
1941	5,810	9,752	15,562	2.7	41,915	2,286	903	24.7	1,157	72.9	10,640	96	130.1	
Pere Marquette	1942	5,841	7,417	13,258	2.9	31,986	1,821	783	27.9	774	42.1	5,079	101	92.1
1941	7,441	8,708	16,149	3.0	31,281	1,805	688	24.5	590	39.1	4,548	102	98.3	
Pitts. & Lake Erie	1942	7,225	6,329	13,554	8.1	43,079	3,320	1,900	47.9	434	14.3	26,704	98	62.6
1941	9,652	5,013	14,665	14.2	43,410	3,326	1,849	46.2	364	12.8	23,675	90	57.1	
Wabash	1942	8,485	11,884	20,369	1.0	40,925	2,081	854	24.8	930	53.9	8,062	120	98.8
1941	9,712	11,185	20,897	1.6	40,038	1,989	736	22.3	749	51.3	6,582	124	89.2	
Central Eastern Region:														
Baltimore & Ohio	1942	44,071	44,001	88,072	2.6	28,579	2,202	1,019	31.8	841	41.6	11,824	159	95.0
1941	50,396	31,937	82,333	4.8	29,545	2,200	1,003	31.6	704	35.7	9,120	158	73.6	
Central of New Jersey†	1942	7,011	18,508	25,519	2.1	28,482	2,238	1,103	35.7	343	16.0	12,930	140	96.6
1941	6,563	12,529	19,092	6.2	28,074	2,333	1,147	34.1	371	18.0	10,279	140	77.4	
Chicago & Eastern Ill.	1942	2,497	3,360	5,857	3.4	29,797	1,684	770	29.1	854	43.1	5,258	141	76.9
1941	2,803	3,337	6,140	6.3	30,355	1,683	710	25.9	701	41.0	4,649	141	72.7	
Elgin, Joliet & Eastern	1942	8,831	8,675	17,506	3.1	15,267	2,152	1,089	39.1	295	12.3	13,441	143	102.6
1941	8,810	8,636	17,446	4.9	16,865	2,142	1,056	39.4	265	11.7	11,847	141	94.1	
Long Island	1942	57	4,318	4,375	1.4	5,862	842	335	30.0	73	4.5	842	352	46.2
1941	99	3,582	3,681	0.5	5,776	794	315	30.6	79	5.1	751	324	47.0	
Pennsylvania System	1942	151,018	102,872	253,890	4.4	34,255	2,551	1,163	30.7	633	32.3	16,135	128	96.3
1941	175,452	64,061	239,513	13.9	36,963	2,612	1,140	30.2	541	29.6	12,889	120	77.8	
Reading	1942	18,573	20,536	39,109	5.8	27,466	2,225	1,155	38.6	581	23.7	15,556	138	83.1
1941	20,732	16,039	36,771	11.2	26,555	2,182	1,108	36.2	480	21.9	12,284	149	67.3	
Pocahontas Region:														
Chesapeake & Ohio	1942	42,077	12,963	55,040	1.0	50,012	3,489	1,915	44.9	1,049	40.8	18,944	85	74.8
1941	43,936	10,975	54,911	2.3	53,504	3,721	2,019	44.3	1,039	40.7	18,740	84	69.9	
Norfolk & Western	1942	35,122	6,813	41,935	1.4	56,030	3,587	1,907	44.6	1,134	43.9	22,516	98	95.8
1941	38,303	6,961	45,264	1.9	56,694	3,736	1,953	43.0	1,077	43.4	22,532	97	90.5	
Southern Region:														
Atlantic Coast Line	1942	10,970	13,835	24,805	4.6	25,746	1,543	594	23.8	769	51.6	3,707	116	101.4
1941	12,675	10,935	23,610	9.6	24,392	1,403	509	22.6	552	40.5	2,597	118	86.2	
Central of Georgia†	1942	3,147	5,536	8,683	0.4	25,454	1,366	582	25.5	666	36.1	3,165	130	91.2
1941	4,225	4,774	8,999	2.3	25,515	1,318	533	22.8	580	35.1	2,704	129	85.3	
Gulf, Mobile & Ohio	1942	3,023	4,930	7,953	1.5	35,694	1,996	885	26.8	1,000	52.8	4,117	118	108.0
1941	3,599	3,825	7,424	4.4	33,967	1,825	769	24.5	847	48.6	3,207	114	90.9	
Illinois Central (incl. Yazoo & Miss. Vy.)	1942	26,752	27,169	53,921	1.1	36,080	2,195	986	30.6	1,082	56.2	8,760	130	90.8
1941	26,719	17,981	44,700	2.1	31,648	2,015	861	28.3	871	49.4	5,984	143	66.5	
Louisville & Nashville	1942	36,418	13,428	49,846	1.8	25,969	1,687	819	34.3	800	37.8	8,292	138	123.0
1941	33,801	10,387	44,188	4.3	28,170	1,789	865	34.5	807	39.0	7,548	132	108.6	
Seaboard Air Line*	1942	9,034	11,557	20,591	2.0	26,791	1,621	670	25.5	878	51.2	4,387	134	111.1
1941	11,248	9,504	20,752	2.9	26,916	1,580	603	24.1	672	45.2	3,270	132	91.6	
Southern	1942	19,478	25,669	45,147	3.7	23,503	1,405	611	26.5	834	46.5	5,798	152	101.2
1941	22,986	23,626	46,612	7.9	23,763	1,402	583	25.1	689	41.6	4,855	151	93.6	
Northwestern Region:														
Chi. & North Western†	1942	28,887	26,956	55,843	3.8	30,491	2,048	825	26.5	492	28.7	3,358	132	71.1
1941	29,821	22,556	52,377	6.3	30,070	1,951	763	25.0	410	25.6	2,587	134	55.2	
Chicago Great Western	1942	1,712	4,037	5,749	1.5	35,176	1,911	756	25.1	1,249	75.9	5,043	129	125.3
1941	1,886	3,439	5,325	1.0	33,945	1,854	667	23.0	1,076	76.2	4,053	130	111.5	
Chi., Milw., St. P. & Pac.†	1942	33,307	23,557	56,864	1.3	33,446	2,101	924	29.4	800	42.8	4,245	125	92.5
1941	39,459	20,769	60,228	2.9	32,084	1,951	808	26.5	563	33.3	3,138	129	79.5	
Chi., St. P., Minneap. & Om.	1942	1,530	6,086	7,616	5.2	21,711	1,612	691	27.2	612	33.0	3,311	127	71.5
1941	2,012	6,065	8,077	5.6	20,127	1,505	605	24.9	538	32.8	2,650	127	63.8	
Dul., Missabe & Iron Range	1942	13,223	623	13,846	2.6	15,024	1,172	503	27.2	30	1.9	750	198	14.5
1941	13,274	256	13,530	2.4	12,747	929	405	26.6	22	1.3	550	225	17.6	
Great Northern	1942	27,167	14,241	41,408	2.6	36,302	2,271	973	28.4	863	46.0	4,398	114	80.8
1941	32,289	9,725	42,014	4.2	33,602	2,074	814	25.8	545	33.6	2,894	119	59.3	
Minneap., St. P. & S. St. M.†	1942	9,803	5,691	15,494	2.7	28,390	1,610	710	28.1	717	38.4	2,614	107	117.8
1941	11,544	4,629	16,173	4.7	24,788	1,439	594	25.3	473	28.6	1,814	114	110.2	

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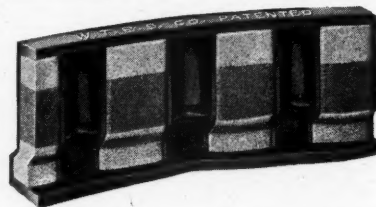
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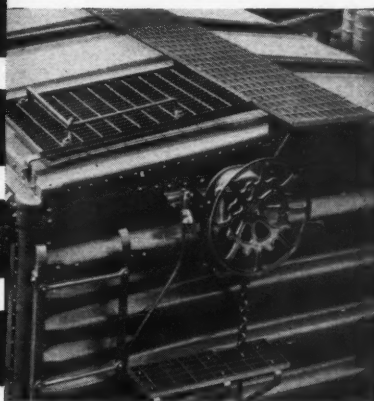
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